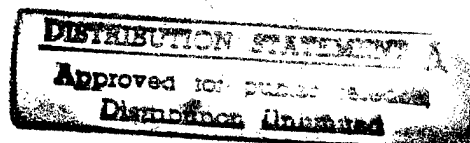


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East Europe Report



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15 February 1986

EAST EUROPE REPORT

CONTENTS

ECONOMY

CZECHOSLOVAKIA

RUDE PRAVO Reports Visit by PRC Experts (Wang; RUDE PRAVO, 7 Jan 86)	1
Briefs	
Czechoslovak-Vietnamese Economic Plan	2
Skoda Factory Conference	2
Afghan TU Delegation	2
DPRK Trade Protocol	3
USSR Writers Union Protocol	3
Lenart Presents Award	3

GERMAN DEMOCRATIC REPUBLIC

Service Sector Announces Goals, Responsibilities for 1986 (DAS NEUE HANDWERK, No 12, Dec 85)	4
Shiftwork Promotes Efficient Use of Machinery in Combines (SOZIALISTISCHE FINANZWIRTSCHAFT, No 6, 1985)	10
Scientific Labor Organization Aids Bezirk-Managed Combines (Rudolf Hempel; SOZIALISTISCHE ARBEITSWISSENSCHAFT, No 5, 1985)	12

HUNGARY

Status, Perspectives of Aluminum Semi-Manufacturing Through 2000 (L. Dozsa; MAGYAR ALUMINIUM, No 9, 1985)	19
--	----

POLAND

Ambiguous Role of Private Sector Service Outlined (Joerg Bremer; FRANKFURTER ALLGEMEINE, 13 Jan 86)	24
--	----

Trade Protocol With CSSR for 1986 Reported (TRYBUNA LUDU, 17 Dec 85)	27
Gdansk PZPR Committee Rates Local Economic Activity (Gdansk Domestic Service, 13 Jan 86)	28
Briefs	
Communications Growth	29
Gwiazda Attends Moscow CEMA Meeting	29
Trade Protocol With PRK	29
ROMANIA	
Restructuring of Exports in Industry (Theodor Purcarea; REVISTA ECONOMICA, No 40, 4 Oct 85) ...	30
New Technologies for Increased Use of Raw Materials (Corneliu-Anton Coceasiu; REVISTA ECONOMICA, No 40, 4 Oct 85)	35
MILITARY	
GERMAN DEMOCRATIC REPUBLIC	
Civil Defense Measures To Protect Livestock Outlined (Eberhard Karge; SCHUETZEN UND HELFEN, No 4, 1985)	39
Bio Data on Border Troop Officer's College Head (Joachim Meyer; FREIES WORT, 29 Nov 85)	41
POLITICS	
ALBANIA	
Assembly Commissions Prepare for Session (ATA, 20 Dec 85)	45
Leaders at Republic's 40th Anniversary Concert (ATA, 12 Jan 86)	46
Mehmet Elezi Report on Youth Organization (Mehmet Elezi; ZERI I RINISE, 25 Dec 85)	47
Amnesty Proclaimed on Republic Anniversary (ATA, 10 Jan 86)	51
Briefs	
Volume 48 of Hoxha's Works	52
Party Plenum Convenes	52
Political Members Attend Children's Party	52

Laotian President Receives Delegation	53
Bekteshi, Cerrava at Song Festival	53
Leaders Thank Lao Counterparts	53
Preparations for 8th Session	54

HUNGARY

Former Premier Says Kadar No Puppet (Hegedus Interview; DIE WELTWOCH, No 49, 5 Dec 85)	55
---	----

POLAND

Party Work in Armed Forces Audited (ZOLNIERZ WOLNOSCI, 16 Jan 86)	60
Warsaw Secretary on Party Work, Intelligentsia (Janusz Kabasiewicz Interview; ZYCIE WARSZAWY, 16 Jan 86).	63
Orzechowski, Fischer Sign Protocol in Berlin (Zbigniew Kustosik; Warsaw Domestic Service, 17 Jan 86) ..	66
Briefs	
Grzyb, Michalek at Party Meetings	67
Barcikowski at Kielce Fete	67
Stomil Factory Director Suspended	67
Shakeup in Szczecin	67
Barcikowski Addresses Labor Council	68
Jaruzelski Visits Rubber Factory	68
Orzechowski, Urban at Ideological Conference	68

SCIENCE AND TECHNOLOGY

ROMANIA

Bucharest Subway Radio Communications System Described (E. Rusu, I. Lixandru; REVISTA TRANSPORTURILOR SI TELECOMUNICATIILOR, No 9, 1985)	69
--	----

ECONOMY

CZECHOSLOVAKIA

RUDE PRAVO REPORTS VISIT BY PRC EXPERTS

AU081532 [Editorial Report] Prague RUDE PRAVO in Czech on 7 January on page 2 carries a 550-word interview given by Wang [name as published], vice president of the Beijing Institute of Building Materials, to RUDE PRAVO staff member Vladimir Plzak. The place and date of the interview, which is published under the headline "Between Plzen and Beijing," are not specified.

The interview deals with a recently concluded 2-week stay of a five-member group of Chinese experts, headed by Wang, at the Research Institute of Ceramics in Plzen, where the guests from the PRC "acquainted themselves with methods of beneficiation of nonmetallic raw materials and with their utilization." In the interview, Wang points to Czechoslovakia's great experience in the production of ceramics and building materials and to the value of this experience for the PRC, with its abundant deposits of bentonite and perlite. According to the Chinese delegation head, his group was particularly interested in the industrial processing of perlite and in its use as an ameliorative agent in agriculture. They were also impressed by the use of "activated sorbents" for treating sewage water, a method that was developed by the Plzen Institute. Wang says that their expectations as regards their visit to Czechoslovakia were "surpassed in many respects" and that they obtained "valuable experiences." He says that after their return home, they will sum up the results of their stay in Czechoslovakia and submit proposals for the further development of the production base for ceramics "with effective help from Czechoslovak experts."

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ECONOMY

CZECHOSLOVAKIA

BRIEFS

CZECHOSLOVAK-VIETNAMESE ECONOMIC PLAN--Deputy Federal Premier Svatopluk State Planning Commission chairman and Vo Van Kiet, SRV Council of Ministers vice chairman and State Planning Commission chairman, signed a protocol on the coordination of the Czechoslovak-Vietnamese economic plans for 1986-1990 in Hanoi today. Czechoslovakia will participate in the advancement of Vietnam's power base, in particular by supplying machinery and equipment and also will help in updating Vietnamese enterprises in the industrial processing sectors. The Vietnamese Socialist Republic will primarily supply Czechoslovakia with raw material and other products. The Vietnamese Council of Ministers vice chairman said that this was a new important step for the development of traditionally good cooperation and he noted that the Czechoslovak side showed true understanding of the current situation of the Vietnamese economy. [Text] [Prague Domestic Service in Czech and Slovak 1300 GMT 10 Jan 86 LD] /12232

SKODA FACTORY CONFERENCE--A conference of communists of the Skoda Enterprise Factory of Vladimir Ilich Lenin began today in Plzen in the presence of Alois Indra, member of the CPCZ Central Committee Presidium. The report praised the implementation of scientific and technical development and introduction of automated technological work places. It pointed out remaining problems such as the aging of the production base, a further fall in the number of workers, making good use of the available working hours, and the growth of supplies from year to year. It stressed that a solution must be found in the Eighth 5-Year Plan to these shortcomings and to a fundamental change in acquiring resources. The socialist pledge adopted today to honor the 17th CPCZ Congress and the 65th anniversary of the founding of the party also concentrates on these tasks. [Text] [Prague Domestic Service in Czech 1530 GMT 10 Jan 86 LD] /12232

AFGHAN TU DELEGATION--The Central Council of Afghan Trade Unions delegation headed by 'Abdol Satar Pordeli, its chairman, visited the national enterprise, Prefa, in Prague today. In the plant in Malesice, where prefabricated sections of buildings are made, they were briefed on the plant's production program and the trade union organization's activity. The Afghan trade union delegation then visited a construction site in the Southern City [a Prague suburb] where they were briefed on housing construction. [Text] [Prague Domestic Service in Czech and Slovak 1400 GMT 14 Jan 86 LD] /12232

DPRK TRADE PROTOCOL--A protocol on the exchange of goods and payments between the DPRK and the CSSR for 1986 has been signed in Pyongyang. The protocol was signed by Song Hui-chol, DPRK vice-minister of foreign trade and Jan Stracar, CSSR vice-minister of foreign trade. [Text] [Prague Domestic Service in Czech and Slovak 1300 1300 GMT 14 Jan 86 LD] /12232

USSR WRITERS UNION PROTOCOL--A protocol on cooperation was signed in Moscow today by the Czechoslovak and Soviet Writers Unions for this year. Vera Adlova, secretary of the Czechoslovak Writers Union Central Committee, said that the signed document was creating a firm base for further expansion of mutual contacts. The writers unions will concentrate this year on the promotion of cooperation between young authors. The 30th seminar of Bohemists and Slovaks on translating works of Czechoslovak writers into Russian will be organized; and cooperation of the two unions in the field of children's literature will expand too. [Text] [Prague Domestic Service in Czech 1730 GMT 14 Jan 86 LD] /12232

LENART PRESENTS AWARD--Jozef Lenart, member of the CPCZ Central Committee Presidium and first secretary of the CPSL Central Committee, presented the Order of Labor to Vladislav Nespor, director of the State Institute of National Health in Bratislava today. This high state distinction was conferred on him by the president of the republic on his 60th birthday in recognition of his years-long selfless work for the CPCZ and socialist society. [Text] [Prague Domestic Service in Czech 1000 GMT 14 Jan 86 LD] /12232

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

SERVICE SECTOR ANNOUNCES GOALS, RESPONSIBILITIES FOR 1986

East Berlin DAS NEUE HANDWERK in German Vol 39 No 12, Dec 85 p 3

[Guideline for the Principal Annual Meetings of the Production Cooperatives of Small Trades and the Principal Meetings of the Crafts Purchasing and Delivery Cooperatives, for 1986, Ministry for Bezirk-Managed Industry and Food Industry]

[Text] The 11th SED Central Committee session has shown us the stretch on the road ahead to be coped with in successfully preparing for the 11th SED Congress and achieving the ambitious goals for 1986. Together with performance growth through high-tech and key technologies, constant attention is required for the citizens' everyday concerns, those matters which in a special way affect the joy of working and of living and the dedication. By what they do, the crafts create important premises for facilitating domestic chores and for more leisure for the families, for preserving the use values on the constantly broadening palette of consumer goods and making the lives of our citizens more pleasant through a great number of personal services.

As set down at the 11th SED Central Committee session, important reserves are supposed to be tapped for performance increases through comprehensively fostering the crafts, especially through allocating means of rationalization, the granting of credits and tax and other benefits and, above all, still closer cooperation with the service combines and enterprises. The principal annual meetings of the PGH [Production Cooperatives of Small Trades] and the principal meetings of the ELG [Crafts Purchasing and Delivery Cooperatives] in 1986 must therefore be imbued with ensuring an increasing contribution by the crafts as the alliance partners of the working class to successfully carrying on the principal task with its united economic and social policies and, hence, to strengthening socialism and peace.

Through the complete fulfilment and a not inconsiderable overfulfilment of the performance goals in the 1981-1985 5-year-plan, the crafts also have created a sound basis for themselves for new and higher tasks. Depending on that in 1986, the initiatives of the cooperative and privately working craftsmen must be aimed more completely still at further increasing the rate of intensification and rationalization through concentrating of the following priorities:

1. Guided by the best performances of 1985, the contribution from each PGH and each crafts enterprise to satisfying the needs for services for the public must be effectively raised at a high quality.

2. The service and repair sector must be perfected and broadened in line with steadily growing public demands. New services are to be offered.

3. Customer service is to be organized on behalf of the working people's sensible utilization of their leisure, mainly through after-hour and weekend services, customer-friendly operational hours, especially during vacation periods, the development of exchange and express services, and of direct deliveries, following optimum examples.

The results of the performance comparisons in 1985 and the experience exchange conducted in the various crafts are to be used in each PGH and each crafts enterprise to discover the performance and efficiency reserves with reference to the optimum values achieved and plan effective changes for one's own labor process.

Increasing Performance to Carry On the Course of the Principal Task

In debating the preparing and conducting of the annual principal meetings and the 1986 tasks, it must become clear that also the crafts

--have all it takes to ensure, and speed up in a targeted manner, the further performance improvements,

--have to adapt themselves, in preparation for the 11th party congress, to the requirements up to 1990 and beyond, and

--have to aim high in setting the goals for labor productivity growth, further trim material and energy consumption, and ensure improving quality and efficiency of performances.

On that basis an influence must be brought to bear on that every member of a cooperative and every private craftsman make his personal contribution to worthily preparing for the 11th party congress by concrete deeds and obligations. High performance increases for preserving and extending capacities are called for in particular in the major tasking types of services, shoe repair, the making of orthopedic shoes, furniture and upholstery, photography, beauty parlor, cosmetics and physical culture. Special efforts are needed for territorial self-supply in baking goods and meat products. The capacity of the crafts to produce commodities in response to individual customer preferences must be further enhanced.

A priority task is that the craftsmen also in their work, in close cooperation with the territories, adapt themselves more to the 3-shift rhythm in the enterprises of our economy and facilitate the accepting and delivery of orders beyond and above traditional working hours.

Decisively Improving Productivity and Efficiency Through Comprehensive Intensification and Rationalization

1. The key issue for a further successful development and extension of services and the surmounting of level disparities lies in the boosting of labor productivity. To that end, the PGH's and the crafts enterprises are to be oriented to making a broad use of the catalogues for proven rationalization solutions and technologies, which are maintained in the bezirk small-trades chambers of commerce, their Kreis outlets and the ELG's, in which high performance improvement are documented.

In close connection with the implementation of rationalization, the 1986 plan in particular provides for targeted measures for applying technological solutions to shoe repair, the manufacture of orthopedic shoes and made to measure clothing, the repair of umbrellas and camping items, motor vehicle maintenance and building repair. Furthermore, more has to be made of the rationalization solutions for the various labor processes.

The communal economy institute and the scientific-technical centers of state-owned service combines have been directed at providing better assistance still to the intensification process for the crafts by bringing out technologies that also conform to the conditions in the crafts, such as the repair of watches including quartz watches, the repair of leather-goods, and furniture and upholstery. The bezirk small-trades chambers of commerce, the center for rationalization and small-scale mechanization of the crafts, and the occupational teams are going to organize increasingly their experience exchange and mutual assistance for the broad application of technologies and rationalization solutions.

2. Successful work in the comprehensive intensification of repair and service processes makes high demands on in-house rationalization means construction. This pertains not just to a rationalization means construction as such, but to a manufacture that is derived from concrete supply tasks and is concentrated on priorities. Through a coordinated production replication and close capacity cooperation in bezirk-managed industry with the rationalization capacities in the local supply economy, the craft proportion is further raised. PGH's and crafts enterprises which construct means of rationalization have to see to it more resolutely still that those capacities are available to rationalization in the crafts.

In rationalization means construction, priority attention is to be given to bringing in new repair technologies, further reducing heavy physical work, and enhancing the productivity of performance. In introducing new technologies and rationalization solutions and in using means of rationalization, the various crafts have to assist one another more effectively still.

3. More of a commitment and more energy are required for a higher capacity utilization of the fixed assets. Still basic assets are, in part, used only in a single shift, and their higher technological potential is but inadequately linked with an intensive utilization of it. Especially in crafts where on account of rapidly developing needs an above-average performance increase is required, the fixed assets must be used more effectively, above all by the PGH's, through converting to shift-labor and expanding working hours. As in the "Kfz" PGH in Neubrandenburg, which has been running three shifts since May 1985, management has to bring a stronger influence to bear on releasing manpower through technical-organizational measures, rationalization and an improved working-hour capacity utilization.

4. Trimming production consumption is an important intensification yardstick. That objective is obtainable not merely by being economical, albeit a traditional virtue of the crafts. It increasingly calls for concrete efforts, based on scientific-technical data, in the thrifty use of material, energy and fuel.

That includes planning, and accounting for, material requirements on the basis of norms and standards and improving the order and control in inventory and storage management. Through accelerating the turnover processes and through working with material assignment keys, one must effect a drop in stock inventories and in specific material consumption. As in the Kloetze PGH for radio and TV, where through the reuse of old parts, improved testing methods, and a better order in material accounting, a 12-percent drop in spare part consumption was reached, measures have to be set down everywhere for further reducing the spare part and material requirements from new stock.

5. Quality assurance reflects the craft tradition and a high sense of responsibility.

That must more and more become the crucial criterion for the work. "Service made to measure" is the proper way for it; it is being taken by more and more PGH's and crafts enterprises and reinforces the public trust in services.

That includes

- ensuring high-grade services and ample supplies of them;
- friendly customer service and expert instruction;
- meeting normal delivery schedules; and
- customer-friendly working and service hours.

An important task which in 1986 must be placed still more into the center of management activity lies in further improving efficiency and profitability. The basic prerequisite for that lies in further strengthening socialist production relations in the PGH's. A prerequisite for bringing an influence to bear, according to plan, on the development of profitability and the strengthening of the cooperative funds is a more effective application of economic cost accounting.

The efforts of the PGH chairmen, boards and commissions have to be concentrated on a still more comprehensive participation by the members in the management and planning. The bases for that are a high level of competition and accurately abiding by, and controlling, the measures set down in the operational regulations.

The PGH's have to make an increasing contribution to ensuring a new generation of personnel.

The operational regulations have to be checked over in all PGH's in preparation and implementation of the principal annual meetings and have to be revised in conformity with new requirements. According to Article 10 Section 2 of the PGH model statute of 21 February 1973, that is to be based on the resolution from the GDR Council of Ministers and the FDGB National Executive Committee on the guideline for working with the operational collective contract, as of 23 May 1985 (GBL Part I No 145 p 173).

Using Cooperative Efforts for Supplying, Proper as to Demands, and Civically Relevant Customer Services

Socialist cooperative efforts, mainly the supply group efforts headed by state-owned enterprises, are gaining importance to the tapping of performance and efficiency reserves.

Through the participation of the PGH's and the crafts enterprises in computing the specific demands in the various types of services in the measures planned for the development of the capacities, the most efficient solutions have to be enforced for ensuring a broad spread of service offers and civily relevant customer services. To that end, more use must be made of the cooperative opportunities as between the state-owned service enterprises and the PGH's in cooperative facilities.

Within the scope of the activities by volunteer working teams, made up of experienced engineers, craftsmen and technicians, the performance and customer service conditions available in the enterprises of the supply group are to be analyzed, available reserves are to be uncovered, and their being tapped is to be organized jointly. The priorities there are:

- Ensuring the availability of complex performances through an effective co-operation among the various crafts, coordinated in sequential terms.
- Assistance in bringing in new working methods, fully using and maintaining extant equipment, and improving the labor organization and the working and living conditions.
- Adapting the enterprises and cooperatives of the supply or production group to repair requirements and training measures resulting from the new or further development of consumer goods.
- Optimal use made of available transportation capacities through working together in transport communities and the delineation of supply territories.
- Involving the crafts in the multifaceted network of reception outlets and order centers of the state-owned service enterprises and a coordination among stand-by and express services.
- Organizing performance comparisons and experience exchange to reduce surviving level disparities.
- Taking part in recruiting a new generation of personnel and in enforcing effective forms of vocational training.

Elevating ELG Effectiveness and Responsibility

The focal point in ELG principal meetings has to be a faster boost of member enterprise capacity. To that end, the ELG's, in preparing member enterprise bids, must bring a direct influence to bear on tapping their performance reserves and capacities and ensuring the supplies from those enterprises, their materials and ancillary supplies, as state planning tasks demand. That calls for conducting an economically justified material, spare part, and inventory management to secure the effective use of the material funds and tap the material reserves. Through close cooperation with the means of production trade, the local state organs, and the state-owned territorial industrial enterprises, the proven way of working with material exchanges, the transfer of unused means of production, and taking an influence on returning and regenerating spare parts has to be further expanded.

According to plan one has to support the enforcing of rationalization and the in-house rationalization means construction by the crafts. Then one has to make sure that good rationalization solutions are rapidly applied in their own enterprises for the benefit of higher achievements.

Further priorities are these:

- Improving the performance conditions of the member enterprises with support from the local councils and the bezirk small-trades chambers of commerce, by creating the preconditions for jointly operating productive machinery and installations.
- Ensuring an active participation by the member enterprises in the supply and production groups and in shaping effective cooperation relations with the state-owned service combines.
- Bringing an influence to bear on the members' political-ideological and technical training, the improvement of working and living conditions, and the organization of performance comparisons among member enterprises with the idea of applying the optimum experiences.

Through the revision of the model statute the necessary foundations are laid for making the ELG's highly effective in implementing the tasks referred to.

In preparing and conducting the principal annual PGH meetings and the principal ELG meetings, we must carry on everywhere, up to the last day in the year, a vivid debate on performance improvement and consult on ways and means by which the higher goals are to be attained. High-grade services available at all times and top-notch repairs, taking care of orders rapidly, friendly service, brief waiting and delivery periods for the services resorted to, satisfied customers--all that must be the contribution from the service sector, and hence also from the crafts, to worthily preparing for the 11th SED Congress.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

SHIFTWORK PROMOTES EFFICIENT USE OF MACHINERY IN COMBINES

East Berlin SOZIALISTISCHE FINANZWIRTSCHAFT in German Vol 39 No 6, 1985 (signed to press 21 Oct 85) p 3

[Experiences from the Bezirk-Managed and Food Industry: "A Fuller Use Each Day from Machinery and Plants"]

[Text] A higher capacity use of machinery and plants, their multishift operation, and reduced idling and downtime mark important conditions for economic advances in the field of intensification as such.

In the field of the ministry for bezirk-managed industry and food industry, e.g., each hour in which machines and plants are being used productively is, after all, backed up by industrial commodity production at a rate of more than M 10 million. Thus it is all the more necessary to get a fuller capacity use from the equipment needed for economically significant and all other types of output.

The collectives of the VEB fire fighting equipment plant of Neuruppin set an example. There the working people have been engaged in multishift work for years. They systematically started to improve the efficiency of the reproduction process, trim idling and downtime, make the production process more rational, and recruit more working people into 3-shift operations.

State enterprise management and enterprise trade union management under SED party organizational leadership together with the collectives thoroughly prepared the gradual transition to the higher shift system. Today, four sectors in the enterprise are on uninterrupted or consistent 3-shift operations. The calendar-day capacity utilization of the production controlling machines and installations rose at an average of from 5 to 16.2 hours.

To reach a higher productivity we must also rigorously reduce idling and downtime due to technical disturbances. For that, interference and wear and tear analyses have been found useful in combines in the furniture industry. Then one can draw conclusions for production organization and preventive maintenance. Furthermore, the manufacture of spare and replacement parts was boosted in the rationalization departments. Other combines and enterprises also made arrangements to ensure rapid installation repairs even on the third shift.

Increasingly combines and enterprises have started linking general repairs with the modernizing of plants and taking measures to enhance the shift capacity use perceptibly. That also includes providing the shift workers, men and women, in particular, with better working and living conditions.

A higher fixed assets capacity utilization in particular calls for recruiting more working people from one's own ranks into assuming novel tasks. Heavy emphasis areas for that are material reception and storage, packaging, and intra-plant transport. More than one-third of the working people in the food industry and circa 40 percent of the wood and cultural goods industry are working here.

To spread the methods found useful in the contest for a higher capacity use of the fixed assets, performance comparison is encouraged. What was learned from it helped, not last, boost labor productivity on the basis of net output in the first half of 1985 by 7.9 percent over the same period last year.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

SCIENTIFIC LABOR ORGANIZATION AIDS BEZIRK-MANAGED COMBINES

East Berlin SOZIALISTISCHE ARBEITSWISSENSCHAFT in German Vol 29 No 5, 1985
pp 333-39

[Article by Dr of Economics Rudolf Hempel, Scientific Assistant at the Central Research Institute for Labor, Secretariat for Labor and Wages. Original title: "Consideration of Scientific Labor Organization in the Rationalization of District-Directed Combined Works"]

[Text] When the bezirk-managed combines were formed, an essential prerequisite was created for more strongly still concentrating the economic potential under bezirk economic council management on the fulfilment of the economic strategy which the 10th SED Congress had issued. The results in the performance and efficiency development confirm that these combines have stood up well as basic economic management units.

To ensure a high labor productivity boost, the capability of the bezirk-managed combines also has to be further raised according to plan through using the latest scientific-technical data and through the rationalization, modernization, and reconstruction of the production processes. (Footnote 1) (Cf. "Joint Guideline from the SED Central Committee, the Council of Ministers, and the FDGB National Executive Committee, for Preparing the 1986 National Economic Plan and the State Budget Plan," NEUES DEUTSCHLAND, 27/28 April 1985) Achieving that objective calls for:

- Using scientific labor data for upgrading products and technologies,
- the complex application of scientific labor organization (WAO) for the all-round rationalization of entire processes and the modernization of available fixed assets with the idea of cutting the consumption of live and embodied labor,
- a cutback in jobs and a recruitment of labor by use of the experiences of the Schwedt Initiative, and its targeted reassignment in boosting shiftwork and strengthening the production preparation sectors, and
- job reorganization for the purpose of creating better performance prerequisites, a higher effectiveness of skills and labor experiences, and further improvements in working and living conditions.

Specific ways also have to be taken for implementing WAO tasks due to the specific conditions in the bezirk-managed combines (among others, the large number of separate small and medium-size enterprises and production sites, a low labor potential in production preparation, and the placing of various functions under one and the same roof).

A concentrated manpower assignment for solving major emphasis tasks is possible by placing WAO agents in the combine enterprises and forming supra-enterprise WAO collectives within the combine. It has furthermore been found useful to tap territorial reserves (by support from centrally managed combines and science institutions), assign "WAO--territorial rationalization" task forces in conformity with the Stassfurt model, and especially push the performance comparison through effective production group efforts. In particular, the following tasks are high priorities:

Complex Enforcement of WAO in Process-Related Rationalization

Comprehensive intensification calls for a consistent rationalization and the conversion of whole technological processes. Thus one has to enforce also a complex application of WAO. The analysis, structuring and classification of labor, the preparation of performance parameters, and the wage structure formation have to be expanded into larger areas.

One major emphasis here lies on the analysis of uncovering reserves as the most essential foundation for productive changes. Analytical WAO procedures for use in small and medium-size enterprises are available for all essential problems. They range from simple individual analyses (e.g. notes on the plan, inquiries) via lengthy and complex analyses (e.g. process analysis) all the way to mathematical-statistical methods (e.g. time studies, multi-instance frequency procedures). Which analytic procedure is to be used depends on the object of investigation and the field of application. Essential goals for it are:

- Establishing working time losses and modifiable downtime,
- cutting working time expenditures,
- capacity improvements for modern machines and installations in connection with solving the problems in shiftwork, and
- reducing labor hazards.

Thus far, individual analyses have primarily been conducted in small and medium-size enterprises which give indications about an inadequate development of particular parameters or factors that obstruct productivity.

More of a division of labor between small and medium-size enterprises in the bezirk-managed combines leads to specialization and, hence, to a closer linkage among the production processes in various enterprises. That then also requires those combines to engage in complex, process-related analysis and in structuring their production and labor processes. It becomes necessary to get beyond an isolated account of particular jobs and to examine systematically interconnected production processes or lines (sectors, enterprises), including the cooperation relations, without ignoring the details on any given job. Then one has to combine with the analysis and structuring of the main production processes the subsidiary production processes (shipping, transshipping, storage processes and maintenance), the production preparation sectors, as well as management and administration. As practical experience shows, only complex WAO studies lead to first-rate results.

For engaging in structural analyses in terms of complex WAO measures, it has been found to be useful to proceed by taking the following steps:

1. Setting down the task and goal of the analysis

They are derived from operations documents (rationalization and intensification conceptions, the science and technology part of the plan). When the requirement is assigned we get to a priority determination and a delineation of tasks.

2. Conducting a rough analysis

The rough analysis of a selected priority is supposed to provide statements on the givens and indicate essential influence factors and their effects. It is beneficial to use operational documentation and analytical material available. Instant measures deducible from the rough analysis have to be made productively effective at once.

3. Setting down selected objectives

In the outcome of the rough analysis the requirement has to be further specified. On the basis of the four chief economic parameters for performance rating (net production, net profit, products and performances for the population and export) the effects to be achieved are to be set down, and rated, in terms of selected main targets. It is recommended to use quantifiable data, e.g. in increased consumer goods production by or at thousand marks or in units of selected products, the recruiting of so and so much labor, the cutting of production time by so and so many minutes/product or boosted productive working time by reducing modifiable downtime by so and so many minutes/shifts.

4. Preparing a management document

This contains the requirement, the organizational process, and the work program (investigative emphases and areas, names of members composing working teams, time sequence, responsibility).

5. Preparing a fine analysis

Through detailed work studies and accurate measurements, the problems provided through the rough analysis are to be explored more closely. A deepening and narrowing of the field of investigation are called for. It has been found useful to prepare variables for emendation propositions.

6. Shaping the process

When the most effective variables are chosen, the condition wanted for the work process is to be worked out. In addition to standardized technical documents (norms, standards, labor and fire protection regulations), the following WAO instruments are available for it:

- Typical WAO solutions for jobs and production sectors,
- central information service for WAO time standards and typical solutions,
- procedures for the shaping of manual labor processes (GMA),
- general and project-specific WAO requirement image,
- standard job ID, and
- WAO information storage (e.g. catalogue WAO guidelines [KAR], project planning catalogues).

7. Preparing summary analytical and organizational documents

A detailed report has to account for the course of the complex WAO measure and the most important results and provide an efficiency demonstration. The proposed solutions are to be set down in an operations plan which clearly defines liabilities and schedules for a purposeful implementation. It has been found beneficial to distinguish among measures that can be implemented short-range, middle-range, and long-range, which also has to be taken over into the planning documents.

8. Realization

This follows immediately after the structuralization phase and leads to the solution as projected. It includes the preparation and introduction of new

performance parameters in conformity with changed production conditions. It is imperative that strict controls over deadlines and results expected are exercised throughout the entire realization process.

Experience has taught us that ideological preparation, the basis for developing mass initiative, and managerial safeguards are two important prerequisites for the success of complex WAO measures. Sound ideological preparation and extensive information given the working people about the goal of the analysis and its structurization as an integral component of all steps in the work promote the readiness for concerted action. Analyses the working people have undertaken on their own, as by the notes on the plan, starting the work day on their own, and participation in WAO collectives are forms that have proven themselves along those lines.

To coordinate all phases of complex WAO measures, it has been found advantageous to set up a central working team directed by the enterprise director. To resolve detail tasks, interdisciplinary working teams are to be formed that consist of WAO specialists of other combine enterprises, centrally managed combines, colleges and institutions, and specialists from the areas of R&D, economics, production, and technology.

Surveys in bezirk-managed combines provided the following priorities for the complex use of WAO in the bezirk-managed industry:

1. Rationalizing manual processes

Great effects are achieved by a systematic retooling of manual activities often appearing in the bezirk-managed industry, especially for simple work that does not make many demands in large series and mass production. Rationalization opportunities are provided there through using jointing automatons, manipulators, and industrial robots. In connection with a sensible combination of activities diverse in the demands they make, performance improvements are achieved, manpower assignments are held at a minimum and, the substance of labor so enriched, a better use is made of the level of skills. The GMA method has done well in shaping these jobs.

2. Effective connection between primary and secondary processes

When production processes are being rationalized in the enterprises, a priority task lies in an effective cooperation between primary and secondary processes with the idea of making a more rational use of live and embodied labor. Then one must explore whether the secondary processes (transport, maintenance, stock management) should be integrated into the primary processes.

Among the possible solutions are connecting the primary processes by means of mechanized transport, transshipment and storage facilities to cut down the run-through time, and a more effective division of labor as among shipping, transshipping, storage processes, maintenance processes and production activities for broadening the areas to be serviced.

Even under the specific conditions of the small and medium-size enterprises, with frequently changing production assortments, essential savings in working time are achieved through the development of integrated production sectors.

3. Enforcing WAO in management and administration

Favorable prerequisites are created for WAO measures through the centralization of managerial functions and tasks (setting down larger management areas and the concentration of technical engineering and economic tasks on the basis of manpower coefficients) as well as the production concentration in the parent enterprise within the scope of bezirk-managed combine management.

Essential tasks in it are the analysis of managerial and administrative costs and pointing to ways of reducing them, a higher proportion of creative work while cutting back routine activities, and the use of modern managerial and administrative techniques for making the industrial information processes more effective. More binding combine-specific and progressive solutions of WAO, manpower coefficients and norms, and performance parameters have to be elaborated.

4. Analysis and dealing with work hygienic conditions

This task has to be included in complex and process-related WAO studies as a component of production process rationalization. To alleviate the current status of exposed jobs, two ways are to be taken in parallel: On the one hand, the reduction of exposed jobs in existence has to be carried out according to plan and to priorities. The priorities are placed on jobs with high incidents in violating labor-hygienic standards, with multiple exposures, with many shift-workers, and where work-generated illnesses have occurred. On the other hand, exposed jobs in terms of projects per se have to be precluded through preventive workplace arrangements in the first place.

To account for exposures, the combines are advised, in conformity with their exposure profile, to acquire basic testing equipment. In addition, one should use territorial testing equipment communities and testing centers of the bezirk economic councils. Someone has to be made accountable for work hygiene in the WAO department of the parent enterprise.

5. Application of performance parameters and incentives

Bringing to realization a performance-oriented wage policy directly connects with the application of WAO. The work performance parameters are an indispensable basis for enforcing the socialist performance principle. The correct selection and application of quantitative and qualitative performance parameters in connection with setting wages has been found to be a way by which labor efficiency and quality can be enhanced considerably.

Performance parameters and wages have to be concentrated more on using qualitative economic growth factors (minimizing the consumption of live and embodied labor) and on high end results from work collectives. The basis lies in the analysis of labor results and the ascertaining of economic priorities. The working people must be able to affect and fulfil the performance parameters; time standards must be used more for working out labor norms.

New performance parameters and labor norms were worked out in recent years in the bezirk-managed industry by introducing productivity wages. Which does not mean the work is now completed. What with all the changes in techniques, technology, and production and labor organization, the performance parameters and labor norms have to be reviewed and, if necessary, be revamped.

For carrying on with the productivity wages it is of proven benefit to maintain the management methods of the bezirk economic council that were developed together with the performance-oriented wage policy. Thereby one makes sure that the management conceptions that exist in the bezirk-managed combines can constantly be updated and that the groups of specialists are assigned target-directed tasks.

Applying WAO in the Development of New Products and Technologies and for the Rationalization of the Work of the Working People Engaged in Production Preparation

WAO data must increasingly be used in the new and further development of products, procedures and technologies and in organizing work places and processes, whereby to enlarge the economic and social effectiveness of science and technology and speed up the research--application--production cycle. A priority job of the bezirk-managed combines is to boost consumer goods production while achieving a high degree of upgrading. That calls for elevating the level of the production preparation sectors (R&D, design, technology, investment preparation, rationalization means construction) and for taking specific WAO demands into account early in the game through training associates in the field of WAO, found, particularly, in the

- tasking workbooks on R&D themes,
- documents for the requirements and decisions of principle in investment preparation,
- operations preparations for robotics, and
- computer-based methods including the use of screen techniques for project planners, designers and technologists.

Another important job is to rationalize the production preparation labor processes themselves, the work of the project planners, designers, and technologists, along WAO principles, which enhances the efficiency and quality of scientific-technical work. Decisive also is to push in these fields for a transfer of formal activities onto office technology and ADP devices to raise, thereby, the proportion of creative work. The manpower needed to strengthen these areas in the combine enterprises must come out of rationalization measures.

By using the effect of the combine, the following measures become priorities:

R&D

R&D capacities ought to be concentrated, with due regard for the technology and territorial principle, in the parent enterprise and in some structure-determining combine enterprises. In a number of bezirk-managed combines, setting up a scientific-technical center turned out to be a good idea. That ensures concentrating R&D on priorities in the combine's economic strategy. Through coordinating R&D with technology, investments, and rationalization means construction, an effective and rapid application of scientific-technical data is to be ensured. Setting up a central spot in the parent enterprise or the scientific-technical center for joint copyright, standardization, patent work, and market research for all combine enterprises is advised.

Rationalization Means Construction

What has proven itself is the concentration of the rationalization means construction of the combine and the technological and design capacity that goes with it in one combine enterprise and the specialization of the various parts of enterprises or production sites of enterprises in certain production procedures for building combine-specific means of rationalization.

To realize innovator suggestions and enterprise-specific rationalization needs to match centrally built rationalization means, the departments in the combine enterprises that deal with rationalization means construction must be further expanded. One must also use the capacities of the territory (centrally managed combines or the "rationalization aid" cooperative communities) and of the product group.

Investments

It has been found useful to concentrate investment activity in selected enterprises in the bezirk-managed combines. One should also explore further investment possibilities through cooperative cooperation in the economic council in the bezirk, the territory, and the branch through the organizational forms of product group, product line, territorial rationalization, and the setting up of centralized production by means of joint investments.

Forming a central group in the parent enterprise or the engineering enterprise of the combine to elaborate investment preparation documentation, and of an investment placement component, helps greatly in making better use of the social labor capacity.

The intention is to submit another article on management and planning experiences in WAO work in bezirk-managed combines.

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ECONOMY

HUNGARY

STATUS, PERSPECTIVES OF ALUMINUM SEMI-MANUFACTURING THROUGH 2000

Budapest MAGYAR ALUMINIUM in English No 9 1985 pp 305-313

[Article by Dr L. Dozsa, General Manager, Hungarian Aluminium Corporation]

[Text]

I have been asked by the organizers of this conference to express the view of chief executives of the Hungarian Aluminium Corporation on the present situation and long-term outlook of the manufacture and sales of semi-fabricated aluminium items, with special regard to those produced in this country.

I am glad to have been approached to do this, because our experiences with regard to the earlier four conferences on semi-manufacturing have been excellent. The exchange of views, debates, new ideas and fresh contacts featuring these venues have resulted in a better understanding of the most crucial problems ahead, and have been of invaluable service to the aluminium semi-fabricating industry both at home and in abroad.

Commenting on this subject is by no means an easy task. Since the last similar conference held in 1978, considerable changes have taken place in the life of both the Hungarian and world aluminium industry, in the economic situation and perspectives of this country and those of the world as a whole. These circumstances may not be overlooked when a more or less realistic assessment of what is happening today and what may be anticipated in future is striven for.

The unfavourable market situation of our days certainly does affect the present position of aluminium manufacturers throughout the world. If we accept as granted that the response of markets is a vital factor in determining the development policy of a country, it will be evident that the world aluminium market, with its trend of more stringent demands in quality, and faced with

increasing competition, has produced a quite new situation for the manufacturers. A genuinely more difficult system of the underlying conditions, and within these, a very complex market situation has been generated. Particularly, shaping of medium and long-term development concepts has turned into a complicated task.

Aluminium producers, dealers and developers have in recent years greatly been concerned with what aluminium may have in store for the future. Being this an important point, several short, medium and long-term forecasts have been prepared in this connection. As far as I am concerned, I have to admit quite frankly that these prognoses have not been of a very great assistance or guidance to me. My colleagues are at present busy in analysing them as they are forthcoming from different parts of the world. While this work is in progress, I can't help but state that any such general forecasts as have been made since 1980 have so far proved to be a failure. In view of this, every producer, including the Hungarian aluminium industry, will have to prepare prognostications of its own, taking the world situation and local circumstances into account in launching a technical development, production and marketing policy.

We live in a world of permanent changes and this has been particularly true in respect of the aluminium industry for the past five years. These changes are far from being linear, they are broken by repeated interruptions and often by contradictory trends, a state of affairs calling for special attention and foresight by the aluminium producer, dealer and developer.

As a net result, for many years past, I did not encounter any forecast suitable for determining the true trends in the various stages of the aluminium industry (particularly, in the upper ones) in a consistent and consequent manner. The same applies to a marked extent also to semi-manufacturing, in its effect rebounding on the raw material and ingot situation as well. In fact, the method of extrapolations so frequently applied in the earlier decades has no longer provided reliable guidance in shaping technical development projects.

Targets, however, do have to be set; no targets at all are even worse than poorly selected ones. For this reason, in the past 3—4 years the Hungarian Aluminium Corporation has elaborated various development concepts with the participation of nearly 200 specialists from and outside the corporation.

In going ahead with this work, we had analysed the world aluminium situation, the expected demand of the consumer industries and the economic development of various regions and continents, with special regard to how such factors may affect the future of the Hungarian aluminium industry.

Evidently, this issue is rather complex; unfortunately, lack of time does not permit me to go now into more details.

What I find at this juncture gratifying, is the fact that with a good many of those attending now this conference we were able to carry on useful consultations on the world market situation in general and on the perspectives of the Hungarian aluminium industry in particular. I should like to emphasize that our basic ideas in connection with the development of the Hungarian aluminium industry have in the last years remained practically unchanged, although certain aspects of our strategy have called for re-thinking of and even shifts in our original concepts.

A brief historical review

Looking back on the past history of the Hungarian aluminium industry three successive stages seem to emerge.

The *first stage* had lasted until the end of World War II. Technical development until then was fundamentally governed by the needs of the aircraft industry. In this field the aluminium industry had encountered no competition from other sources.

The *second stage* had lasted from 1950 to 1970. Over this period, demand and supply were almost completely balanced. The growth rate of the aluminium industry was highly dynamic, averaging

9.8% per annum, an outstanding figure in comparison with other industries. While industrial production and end-use had risen according to an exponential function, in most fields aluminium semi-manufactures had made heavy inroads on the use of copper, tin, wood, steel, coated steel, reinforced concrete and cast steel. The rise of aluminium end-use was especially marked in electrical engineering, packaging and in many fields of transport vehicle manufacture, the building trade and chemical engineering.

As from the mid-1960s the hitherto firm position of aluminium structures had been gradually affected by competition from other structural materials. Plastics have become cheaper, several plastics-wood combinations have appeared on the market, and several less costly new specifications of steel have been developed.

The *third stage* is embracing the last 15 years. As from the mid-1970s the steady growth and almost complete monopoly of aluminium in a good many end-using fields have come to a halt, with annual aluminium growth rates dropping to an average of about 4%.

Producers and consumers have to be aware that aluminium has to cope with heavy competition from other structural materials, and as producers and sellers we have now to realize that no change in this state of affairs may be anticipated until the turn of the century.

The Hungarian aluminium industry is now the exclusive seller of its own semi-fabricated products, with a considerable part of its production being exported. In this capacity it sensitively reacts to any impulse forthcoming from the domestic and export markets. The competitiveness and end-use pattern of its products is closely knit with other aspects of world economy, such as the international energy and raw material situation and how scrap may be recycled in a techno-economically feasible manner. Such issues tend to grow in importance in the years ahead, and the very future of world aluminium industry may thus depend on how far it will be able to cope in actual practice with these three fundamental matters in its day-to-day technical development and business strategy.

Perspectives

In setting our future targets, special heed was given to the question: what are the known or presumed possibilities of the end-using sectors that may bring about significant changes or a new upswing in aluminium consumption? Although

within the last 30 years the development of world aluminium industry has been most spectacular, it is a relative latecomer possessing larger than average inner reserves. We do believe therefore that the aluminium industry is capable of further great achievements by mobilizing these, so as to keep its present position firm both from a technological and financial point of view.

We expect the aluminium industry to come forward within the next fifteen years with significant innovations and novelties determining its viability in the long run. One thing, however, seems to be certain: the great boom of the fifties and sixties will never return. At the moment it is even uncertain, when will an upswing in world economy take place again, and how will it affect the growth of the aluminium industry.

As far as I am concerned, I am an optimist and expect the aluminium industry to keep its present position and viability both at home and on the world markets. It is hard to believe that the unprecedented boom hallmarking the aluminium industry for many a decade would just be past history. The prolonged recession by which the aluminium industry, too, is now hit, is last but not least due to a combination of circumstances imposing certain limitations to which the aluminium industry is hard put to adapt itself.

Further measures of promoting viability do not exclusively imply the finding of new ways to replace other materials, but also call for a combination of concerted efforts devolving upon all enterprises engaged in the marketing and sale of the metal. There are signs — albeit no concrete results so far — that the world's aluminium producers and dealers have realized the necessity of better coordinating their own interests with those of the consumers.

The situation in Hungary

Recent changes in world economy had a marked effect on Hungary's national economy as well. This is particularly true in respect of its aluminium industry, which — owing to the country's lack of sufficient natural resources and other objective circumstances — is strongly export-oriented, a fact acting as an impetus for developing its semi-fabricating capacities.

Even before the first world war, Hungary had been processing imported aluminium metal. Bauxite operations were only taken up in 1926; this was followed in 1934 by the manufacture of alumina and in 1935 by aluminium smelting.

In 1944 only 6,000 tons of semi-manufactures were produced; by 1960 this figure rose to 33,000 tons per annum. The relatively slow growth rate of producing aluminium semi-manufactures was due to shortages in metal supply. This problem was resolved in 1962 by signing a Hungarian—Soviet alumina/aluminium long-term exchange agreement, under which Hungary is supplying an annual volume of 330,000 tons of alumina to the Soviet Union, in return of which it is receiving 165,000 tons of aluminium ingots from the Soviet Union annually. These ingot imports have been a decisive factor in raising Hungary's aluminium processing capacities. Thanks to this, within the last 20 years, our semi-fabricating production could be increased to 200,000 tons per annum. This dynamic growth is now fully commensurate with the country's available bauxite reserves. Even if our present alumina-producing capacities were to expand, Hungary's bauxite resources would be large enough to keep our plants for another 45—50 years going. Our bauxite exploration programmes are continued, and prospects of finding further workable ore reserves appear to be promising.

At present, Hungary's annual alumina output is 880,000 tons, so that our bauxite and alumina operations may cater for a total smelting capacity of 400,000 tons per annum. Evidently, there is yet a great deal to be accomplished in the field of smelting, and in raising the production volume of our semi-fabricated items. Our present-day output of semi-manufactures is actually commensurate with our aluminium metal resources. Although even by international standards our 200,000-ton per annum production of semi-manufactures represents quite a sizeable volume, it is not excessively high. However, it does comply with what raw material is available in our lower stages of vertical integration.

While our technical development programmes were we have, however, never overlooked the world market trends in shaping of the first place governed by domestic demand, in our business policy. Today several tenthousand tons of semi-manufactures are exported annually to socialist and non-socialist countries.

Notwithstanding the fact that Hungary is a small country, our domestic market is calling for a great variety of items, individually sometimes small in volume, necessitating a careful but effective business strategy, wherein export possibilities have to be given full heed.

Our selection of semi-fabricated products embraces alloyed and non-alloyed rolled plates, sheets, strips, discs, extruded rods, profiles, tubes, continuous-cast rod wire, drawn wire, a multiplicity of foil specifications, forged products, castings and various anodized products. The standard of our available manufacturing facilities is rather mixed, including 25-year "old-timers", as well as the most advanced types of modern equipment.

While the growth of our semi-fabricating production was both dynamic and extensive, great efforts were made to render our operations cost-effective and to meet current world market demand. In view of this, what has been achieved within the last twenty years may also be referred to as a case of intensive technical development. As for Hungarian standard specifications, they comply with most of their international counterparts. With a small exception, full domestic demand is met by domestic production. Some 30% of our output is exported to the full satisfaction of our customers. From the foregoing you may have reached the conclusion that the development of our aluminium industry has in every respect been positive. Alas, I have to admit, this is not the case. There are still plenty of shortcomings in producing sufficient income and meeting the full impact of demand called for by the export markets. Last but not least, these were the principal reasons why we had changed our earlier 20-year old trend of extensive technical development to a throughout intensive one.

Meeting domestic and export demand in terms of volume poses no problem for us. Let me emphasize once more that in terms of volume. It should, however, be understood that whatever innovation is launched and introduced by any of the consumer sectors, finally emerges at our end in some form of demand, irrespective of whether or not complying with the prevailing standards. No wonder that under such circumstances keeping pace with new developments in the world calls for a great deal of efforts, especially if considerations of cost effectiveness and competition have to be taken into account. Therefore our business strategy until 1990 may so be formulated that relying on our present available facilities we have to raise the manufacturing quotas of high-finish value-added items so that we may keep on to be competitive on the world markets, even when items of higher technological standards are ordered from us than furnished heretofore. This is not only a question of quality, but one with implications of more attractive packaging and, what is especially important, of shortening delivery times. These are

the most essential tasks we are faced with right now, involving not only technical development but also an improved organizational pattern. Thus, considerations of volume have to give more way to aspects of cost-effectiveness and intensification of available resources; it is now the order of the day, something that is not only possible but absolutely necessary as well.

To underline this necessity, three points may be mentioned:

- For twenty years past, the development of the aluminium industry has been most dynamic; it has, furthermore, been throughout export- and volume-oriented;
- The competitiveness of the aluminium industry's exports; such deals are now being directly transacted by the industry itself, with special heed to quality and pricing;
- The numerous large projects implemented within the last ten years have been a heavy drain on our financial resources.

These three factors have called for a new approach of our technical development. We feel confident that the techno-economic potential we now possess will permit us to go ahead with this new style of work as induced by market conditions at home and abroad.

As mentioned earlier, in cost-effectiveness, quality and meeting some more stringent specifications, we are from time to time faced with certain problems. On the credit side of this, however, no such fundamental problems ever arisen in our sales of bauxite, alumina and aluminium ingots. The difficulties occurring are due to market fluctuations and the increasingly severe standards of quality called for. These major and minor problems are successively being remedied, as has been the case e.g. with certain special brands of alumina, where the necessary improvements shall be implemented this year and 1986, with respect to the requests of our customers.

The seven-year technical development drive of the Székesfehérvár Light Metal Works has been concluded in the first quarter of 1984. In the meantime, its output has risen by 60% and both its technology and equipment have been thoroughly modernized. Foil-manufacturing capacities at the Kőbánya Light Metal Works, too, have in recent years been considerably expanded by the installation of new and modern equipment, whereupon the firm's production, encompassing now a larger diversity of items than ever before, has been trebled. Our semi-manufacturing plants were relying on the loyalty of their customers in accepting the fact that within a year or two the works have been unable to implement such drastic changes in production programmes as originally envisaged.

It is hoped that this stage of transition will soon come to an end. Actually, the year 1984 has been offering more to our customers than the preceding year, and 1985, I am sure, is to herald further advances in the annals of Hungarian semi-manufacturing. We are fully aware of the shortcomings to be overcome in the effectivity of our marketing efforts, and you may rest assured that both the aluminium industry along with a labour force of 21,000 is doing everything in its power to meet the full impact of market demand.

Some specific aspects of technical development

Great attention is being devoted to research in the alloy field. In 1980 the share of alloyed items amounted to 26% of total production. In 1985 their tonnage is to grow by 60% to account for 35% of total semi-manufacturing output, a figure to reach by 1990 the 45% mark. Even today with some major groups of semi-manufactures the corresponding figure is as high as 70—80%.

Medium-term programmes are also launched to take up the manufacture of continuous-cast wide strip and vacuum metallized foil.

Technological progress at our plants had a favourable effect on improving tolerances and the speed at which individual operations are performed. Slab and billet casting, as well as hot- and cold-forming are to be automated, along with great improvements in operational control, a programme now far advanced and nearing completion. This will result in further raising the standard of our products.

Ten years ago our annual semi-manufacturing output was in the order of 100,000 tons. Today it is 200,000 tons. The weight of cast billets and slabs was doubled, a process of continuous purification of the metal to be used in manufacturing slabs, billets and continuous-cast products has been introduced, rolling capacities have increased by the addition of yet another roll stand, the flatness

of sheets and strips was improved by installing a new stretching and levelling equipment, six more extrusion presses and forging machines were put into operation, and our foil production has doubled. What has been accomplished in this respect is also a reminder of how far we lagged behind what had been overdue, the very reason of our earlier shortcomings whose effects are felt by us even today.

We fully realize that no dramatic growth of our industry may be anticipated in the decades to come. Anyway, what had been originally envisaged in the field of technical development has been implemented in the past ten years. The tasks ahead of us are by no means smaller but certainly more painstaking than ever before. Their solution calls for a new working style devolving great responsibilities upon both the executives and total labour force of the aluminium industry in raising the standard of our work and operations.

The necessity of continued cooperation.

Most of you attending this conference have in the past rendered an invaluable service to the Hungarian aluminium industry by your useful observations and frank criticism. In the coming years, too, your understanding of our problems will be greatly appreciated and your comments at all times highly welcomed. I am sure that this type of cooperation in research, technical development, production and marketing will be of mutual benefit for all of us in the solution of several complex issues likely to arise in the future.

I would be glad if this conference were instrumental in boosting the viability of aluminium as a structural material in the face of heavy competition, and if by such contacts as witnessed right now we could strengthen the position of those who are responsible for the future of the aluminium industry in Europe and worldwide. Finally, let me express the hope that these contacts are to continue in the difficult times ahead to our mutual satisfaction. As far as the executives and workforce of the Hungarian Aluminium Corporation are concerned, they will do everything in their power to further this spirit of mutual understanding.

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ECONOMY

POLAND

AMBIGUOUS ROLE OF PRIVATE SECTOR SERVICE OUTLINED

Frankfurt FRANKFURTER ALLGEMEINE in German 13 Jan 86 p 7

[Article by Joerg Bremer: "If It Pays, Poles Work Hard"/ Difficulties of Private Artisans in a Socialist Economic System]

[Text] "Isn't it time to have your room redone?" This invitation in a newspaper ad comes from a painter who has gone into business with a man who lays parquet floors. And two of their friends offer to move the furniture. "We will need 4 days to do your room: one day for sanding, one for varnishing; the floor must dry for 24 hours, and on the last day, the room will be painted. Total cost is 70,000 zlotys." This is the equivalent of almost 4 months' pay for a skilled worker in a medium size Polish state enterprise. On an average, the painter earns about 20,000 zlotys for one day's work on a 50 square meter area. He comes with a small station wagon, brings two ladders, paint (white only), a few brushes and whatever else is needed for the job. He works without a break from 7 in the morning until 6 at night. Then his two friends arrive. Paint spots are scraped off the gleaming parquet floor. The moldings are nailed back to the wall, furniture and carpet are put in place, and the room is again livable.

The painter's name is Tomasz, and he is really an engineer. The floor expert is a trained mason. Their two friends, the furniture movers, are highschool students. The four of them are in agreement that much money can be earned in Poland if one works hard. They are not alone in this opinion. The Warsaw daily newspaper ZYCIE WARSZAWY is full of private advertisements. On a recent Saturday, five painters simultaneously offered their services. Auto mechanics and typists put small ads in the paper. Prices and services are then compared by telephone. Competition is tough, and for this reason, better work is done than years ago. At that time, skilled workers came to work, who had already put in a hard day and wanted to earn a little extra at night. They were tired and hungry, and first off, they drank their beer. Today, many have given up their steady jobs and are self-employed. Sometimes, one hears talk in the West about "the lazy Poles" and "Polish mess." Whoever knows the country finds plenty of examples to the contrary. Where work pays, one works hard, and services are in special demand today: party catering, private mail delivery by taxi, video cassette bartering.

Tomasz gave up his job at the Technical University because he did not earn enough for his wife and children. He also says that he did not want to be put under political pressure. Furthermore, he did not like the inefficient work in other large state enterprises. Independence is in demand. The financial input of the "entrepreneurs" must be low, demand for their services must be high, and "delivery times" must be short. "As a painter, I only need brushes, a ladder, and paint. So I am rather independent. When needed, friends in the West can supply me with tools, and I have good access here to paints," says Tomasz. In a very short time, he can give a cost estimate, start work and finish it. "Usually, after less than a week's work I have made my money. And if some new law is imposed tomorrow which prohibits something I am doing, then I pack up my brush and go home." Tomasz has an income of almost 300,000 zlotys per month. He does not want to say how much he pays for paint and brushes, but at a guess, his income is ten times as much as average Polish wages. In turn, he runs a risk--and he works hard.

Recently, the weekly magazine PRZEGLAD TYGODNIOWY reported about butcher Szymanski in Brzeg. He has a small sausage factory and processes the meat of 100 horses per month. Horsemeat is not in demand in the West. But in a country such as Poland, where ham and steaks can only be had on ration cards, Szymanski earns with it about 300,000 zlotys per month. His sausage is highly praised, since he cures his products for 3 weeks instead of only a few days as is done in state-owned abattoirs. Furthermore, he does not use chemical additives. They work like Trojans in his enterprise. Seven workers start at 6 in the morning and leave for home only after all the meat has been processed. Whoever is late for work, drinks, or does sloppy work, is dismissed on the spot. Recently, Szymanski even showed the door to his brother who wanted a wage increase. So far, the workers earn over 40,000 zlotys per month. Szymanski must now pay 80 percent income tax, since such an enterprise is not overlooked by the authorities. The state abattoir wants to make slaughtering difficult for private enterprises. So it may all be over one day. But at the moment, according to the magazine, the Szymanskis reside in a white villa and spend their vacations on Mallorca.

"Dishonest income" and "unsocialist competition"--the authorities can attack private initiative with such loosely defined concepts. For example, last year a court in southern Poland put a fishmonger out of business. Fish supply in the southern part of the country is scarce, state trade dominates. The man was aware of the shortfall, drove his car to the coast, and, circumventing government regulations, bought flounders and halibut--probably at a somewhat higher zloty price--, drove them back the same day and offered the fresh merchandise. Business was good--until the authorities intervened. Public approval was of no help to the fishmonger; fines and imprisonment added to his fame.

Statistics show that private enterprises and suppliers are facing hard times ahead. In 1984, there were 316,000 such enterprises; their number had been growing. But then, 8,000 enterprises were closed down all over the country. However, much of that was due to a lack of raw materials and

materials for processing. Naturally, these entrepreneurs do well only where there is demand, above all in larger towns. Particularly good locations are Warsaw, Cracow, Lodz and Katowice. Controllers carefully watch all private suppliers and suspect unfair competition everywhere. There is bribery, and greasing of palms. "Private initiative", therefore, is part of that segment of Polish society which professes political loyalty above all and participates in all elections, for example. And on holidays, the "voivode" or a director from the ministry are invited to the house.

All these difficulties are aggravated by the fact that Polish tax and property laws are very complicated. It is possible for one person to have 40 employees working for him, while another cannot get permission to employ one single helper. Another example of restricting private initiative: years ago, tulip and tomato growers with their greenhouses near Warsaw were praised as a symbol of economic progress. Now, state authorities threaten to close the capital's "Polna Market" where the customers of such growers privately offer even citrus fruit. The authorities claim that it arouses envy among those who cannot afford tropical fruit.

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CSO: 2300/148

ECONOMY

POLAND

TRADE PROTOCOL WITH CSSR FOR 1986 REPORTED

AU191019 Warsaw TRYBUNA LUDU in Polish 17 Dec 85 pp 1, 2

[Text] PAP--A 1986 protocol on mutual trade and payments between Poland and Czechoslovakia was signed in Warsaw on 16 December. The protocol foresees a 12 percent rise in trade compared to the level foreseen for this year, which has been exceeded by a considerable amount.

Most of this trade, about 70 percent, concerns machinery and equipment. Twelve percent of our imports in this category will go to those industrial branches directly involved in supplying the market. They will include production lines for the manufacture of butter and cheese; bottling lines for beer and mineral water; looms; spinning jennies; machines for the manufacture of knitwear and footwear; refrigerator components; and other jointly manufactured components for the machine industry. Machinery and equipment for agriculture and that part of industry working for the needs of agriculture will compose a traditional major part of imports.

The protocol also foresees deliveries to our country of trucks and spare parts, gondola cars for coal, diesel locomotives, lathes, electrical goods, and medical equipment.

Poland will continue to export to Czechoslovakia complete sugar refineries and refrigeration plants, machinery and equipment for the chemical industry, electronic goods, products of digital technology, and rolling stock.

We will continue the traditional exchange of various types of raw and other materials and semi-finished goods. Polish exports will be dominated by coal and sulfur, whereas our imports will be dominated by kaolin, magnesite, high-quality tin, special types of wire and glass, and chemical ingredients for the textile and chemical industries.

Over 11 percent of our imports from Czechoslovakia will consist of goods destined directly for the market. Among the more important commodities in this sphere one can mention automobiles and motorcycles, washing machines, furniture, carpets, baby bottles, heat-resistant glass, musical instruments, and drugs. Polish exports for the Czechoslovak market will be dominated by fruit and vegetables, as well as fruit and vegetable preserves.

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CSO: 2600/237

ECONOMY

POLAND

GDANSK PZPR COMMITTEE RATES LOCAL ECONOMIC ACTIVITY

LD141112 Gdansk Domestic Service in Polish 0600 GMT 13 Jan 86

[Text] At Saturday's plenary session of the party voivodship committee in Gdansk, the results of the implementation of the 3-year plan in our voivodship were assessed. It had assumed a growth in the value of the sold production of industry by 15 percent and a growth in export production by 22 percent. Detailed examinations conducted in 50 enterprises in the region have shown that the industrial enterprises concluded the 2-year period with a growth in sold production to a degree of between 26 to 139 percent [as heard] in terms of current prices--for example, Unimor of Gdansk--and a degree of between 4 and 74 percent, in terms of constant prices. Unfortunately most of the enterprises examined did not achieve a clear growth in export production and there are those among them where it clearly declined. The latter include for example the Gdansk leather industry works--Neptun--in Starogard Gdanski, where a 13 percent decline in export production was noted. At the maritime economy enterprises, by comparison with 1982, production grew on average by 100 percent, in terms of current prices. Almost all the enterprises during the relevant period had difficulties with employment. Many persons left, in particular workers. Despite these difficulties production for the market was maintained at a level defined by the plan and the value of sold production exceeded the value envisaged by the plan. The building industry, however, completed its targets only to be degree of 80 percent in the material sense, while at the same time exceeding the financial plan. The rise in prices in industry and construction exceeded the national average, which is an exceptionally negative phenomenon.

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CSO: 2600/237

ECONOMY

POLAND

BRIEFS

COMMUNICATIONS GROWTH--The value of work and services provided last year by the post and telecommunications units was exceeded by 4.3 billion zloty. These achievements as well as plans and development barriers were subjects of a press conference in the Ministry of Communications. It is planned to install 130,000 new telephones and 1,100 telexes this year. An international telex automatic exchange will be handed over for use in Warsaw, and automatic two-way telephone connections with Greece, the FRG, Norway, and the Soviet Union will also be launched. [Text] [Warsaw Domestic Service in Polish 1700 GMT 22 Jan 86 LD] /6662

GWIAZDA ATTENDS MOSCOW CEMA MEETING--A meeting of the CEMA Executive Committee has commenced in Moscow. Taking part are the deputy premiers of member countries and of Yugoslavia, including Wladyslaw Swiazda, deputy premier. The fulfillment of a comprehensive program of scientific-technological progress is being discussed. The Executive Committee will also examine the fulfillment of agreements concerning the creation of a single, unified base for elements of electronic and microprocessing technology and industrial robots. In addition, cooperation in the chemical industry will also be discussed. [Text] [Warsaw Television Service in Polish 1620 GMT 21 Jan 86 LD] /6662

TRADE PROTOCOL WITH PRK--The value of trade exchange between Poland and Cambodia will increase by more than three times. This is envisaged by a protocol signed in Phnom Penh at the end of the 2-day official visit of the Polish Government delegation headed by Deputy Premier Manfred Gorywoda, chairman of the Planning Commission. The value of trade exchange will come to around R14 million and will be mutually balanced. Poland will export products of the electro-machine industry and chemical articles, and will import from Cambodia rubber, soya, sesame seeds and tropical wood. During a meeting of the Polish delegation with Heng Samrin, chairman of the Council of State, and premier Sun Sen, Manfred Gorywoda stated that Poland is extremely interested in the cooperation resulting from the special bonds linking both states. [Text] [Warsaw Domestic Service in Polish 1600 GMT 14 Jan 86 LD] /6662

CSO: 2600/237

ECONOMY

ROMANIA

RESTRUCTURING OF EXPORTS IN INDUSTRY

Bucharest REVISTA ECONOMICA in Romanian No 40,4 Oct 85, pp 9-10

[Article by Theodor Purcarea: "Restructuring in the Export Offerings of Romanian Industry"]

[Text] Soon, the doors will open to the Bucharest International Fair, the most important trade event of the year. It is worth noting the fact that the previous ten fairs involved the participation of over 10,000 foreign companies from every continent. And, the 11th version of the fair will see participation of national pavillions and individual companies from all the continents that are interested in broadening trade and cooperative relations with Romania. Within the framework of this fair, with a general economic flavor, Romanian industry will be the main exhibiter, with a separate place going to the machine building industry. The export offerings of this branch include over 30 sub-branches of type-classification for international trade. We are continuing to present the dynamic process of updating this sector with the achievements of the Romanian electronics industry. A remarkable fact for the current evolution of the sub-branches of the machine building industry is the growth on the international level of the percentage of the electronics industry in the total amount of production from this branch. In just 4 years (1981-1984), the volume of world trade in electronics products has doubled - from \$150 million to over \$300 million. Thus, in 1984 the volume of the electronic equipment and component market exceeded the volume of the automobile market and was approximately 100 times greater than the machine-tool market.

By sub-branch, the orientation of the large producers of electronic equipment was: 36 percent in computers, 14 percent in consumer goods, 8 percent in communications equipment, 4 percent in industrial electronics, 2 percent in medical electronics, 16 percent in electronic components and so forth.

The expansion of the electronics industry was possible on the international level under conditions of concern for industrial restructuring and improving and modernizing production processes, actions intensified by all industrialized countries in the 1980's in view of reducing their dependency on the import of raw materials and energy.

In our country, the last 20 years have marked an increase of over 50 times in the production of automation equipment and electrotechnical and electronic computer equipment. During the period 1975-1983, the production of electronic computers,

in physical units (equivalent to 128 K), increased from 37 units to 272 units. The updating process in this industry is very prompt. For the current five year plan, it is forecast that in the field of industrial electronics the updating of products will be at the rate of 95 percent, for electronic measuring instruments and control equipment it will be at a rate of 75 percent and for computers it will be 91 percent. The Directives of the 13th RCP Congress regarding economic and social development in the future five year plan and in the future call for the electronics industry to be massively involved in all economic-social activities, being directed towards the priority development of electronic component production, automation equipment and industrial and professional electronic equipment. In the field of electronic computers, the growth of production will be achieved especially by way of starting production on new mini-computers and micro-computers for the management of industrial processes, as well as certain other types evolved from peripheral equipment.

The Romanian electronics exports have evolved at the same rate as the growth in production. It covers several large groups of products, such as: electronic equipment and devices for telecommunications, equipment, installations and devices for automation for the most varied fields of the economy, and computers.

From this first group, we can note the automated telephone exchanges for local service and for long distance service which are exported to Algeria, Greece, the USSR, Czechoslovakia and the GDR. Similarly, there are many orders for the electronic telephone exchanges of completely Romanian design that were recently placed on the market. In order to serve subscribers at home, high-performance BUCUR and IOANA telephone devices were produced, based on printed circuit technology and having characteristics of high fidelity voice reproduction, easy mounting and maintenance, and either rotary or push-button dial, as desired.

Similarly, the CL-52 telephone line concentrator is offered for export, which allows important savings in the telephone network by virtue of the fact that it reduces the number of connection circuits. The electronic concentrator, based on a micro-processor, works in the service area as a terminal in the telephone exchange, concomitantly selecting up to 12 numbers from the 52 subscribers connected to the network. These devices are produced by the Bucharest "Electromagnetica" Enterprise, an enterprise having a significant export activity. One remarkable achievement in the field of communications is the ultra-shortwave transmitter-receiver for short and medium-range distances (8-35 km), produced by the Bucharest Enterprise for Industrial Electronics. It can be used in agriculture, at work sites, in geological prospecting, for directing traffic and so forth. In a portable, light design incorporating professional components, it can transmit on 2,500 different frequencies.

Among the top achievements of scientific research in the field of electronic communications equipment, we can also mention maritime equipment, as well as equipment used in the dispatcher centers on the Danube River-Black Sea Canal.

From the second group of electronic equipment - for automation -, we have the NUMERON family for programming machine tools, the family of ECAROM systems for managing industrial processes, the THETAROM family of testing and research equipment, and TELEROM for data transmission.

To illustrate this, we can note among the new control equipment for machine tools the SPL-400 linear positioning and processing system, with a broad range of use for machine tools. It can command concomitantly the sequential positioning and processing of work on three axes, permanently visualizing the phase of processing and any eventual errors. The system can define up to 99 programs on three levels. This equipment is found on Romanian high-performance machine tools, such as the FV-40 TNC vertical lathe produced by the Cugir Mechanical Plant and also offered separately for export.

From among the ECAROM family of systems, we can note the SRAECAROM system produced by the Bucharest Enterprise for Automation Elements that is slated for use in automating production processes in the cement industry, the construction materials industry, the chemical industry, in controlling the electrical networks, the metallurgical industry and in research.

Among the recent achievements of the Bucharest "Automatica" Enterprise, there is the family of programable automated devices used for machine tools, robots, and controlling sequential processes in machine building, chemicals and metallurgy. For example, the AP-201 programable automated device designed by the enterprise and placed into production in 1983, has performance levels like those of the most advanced products on the world markets, being already exported to India, Iraq and the GDR. The "Automatica" Enterprise has also produced the A.P. MICRO programable automated device to be used in the control of low complexity sequential processes (transformer lines, injection machinery, galvanizers, pumping stations and machine tools), a device that is easy to program, having a simple interface and being an economical model for the most sophisticated equipment with identical functions.

Of the various types of THETAROM testing equipment, we can mention a recent achievement of the Cluj-Napoca Office of the Institute of Design for Automation: equipment for the automated testing of integrated circuit structures, the THETAROM FD-5055. Operating together with the Romanian micro-computer FELIX M-18-B, it is used in the electronics industry as well as in research activities for testing both digital and analog integrated circuits. Certainly, the variety of automated devices is much greater, including "dedicated" equipment for control and flow management of petroleum fields, meteorological observations and so forth. The same institute recently produced the THETAROM-4010 automated testing equipment for electronic components.

In the field of testing and experimentation equipment, we can also mention a recent achievement by the Enterprise for Electronic Measuring Instruments in Timisoara: multifunctional electronic laboratories (LE-01). Of a modular construction (platforms), this laboratory can carry out over 20 functions such as measuring components, analyzing diodes by characteristics, testing, filtering, stabilizing power, modulating frequencies, checking oscillating circuits, amplifiers, pulse circuits, electric relays, logic circuits, integrated circuits, thyristors, tact generators, and so forth.

The variety of equipment slated for use on data transmission networks include modern terminals with visual displays, such as the TELEROM 3V-1, which can be

used in exploiting data banks and in the synchronous and asynchronous transmission of data from computers. Up to 16 display terminals (DAF-1002) can be connected to it, as well as printers.

The Institute of Scientific Research and Technological Engineering for Automation exports, in addition to small series-production products and high performance products, engineering services such as: engineering, design of industrial automation systems, designs for systems based on processing computers, tele-processing systems, drawing up applied software programs, technical assistance in implementing systems, instructing users, unified command production and so forth. Among the contracts that have been concluded we can mention: the delivery of automated testing equipment to the GDR, a control system for a cable factory in France, greenhouse automation in the PRC, automated command and control systems for cement factories built by Romanian exporters in the PRC, Iraq, Syria and Pakistan, automated irrigation systems in Iraq and Libya, and automated equipment for thermal power plants in Turkey and the GDR.

The third group of electronic products, that of computers, is fully into a process of upgrading and growth. During the current five year plan, the production of computers, expressed by value, will double concomitantly with its diversification, especially in the field of systems based on micro-computers and mini-computers that are "dedicated" to the processes that they manage.

Among the remarkable achievements Bucharest Computer Enterprise we have the INDEPENDENT mini-computer of the 3.5-4th generation. Thus, FELIX I-102 is considered to be the central processing unit of the highest performance built to date by the enterprise. Used in research, the FELIX I-102, with FORTRAN programming, has execution times 20 times more rapid than the preceding model I-100. The possibilities for adapting it to the management of specific industrial processes are increased both through the design of the hardware as well as through the availability of writing and using specific programs in advanced languages. Another family of mini-computers - well-received on the international market - is the FELIX M-4000-CORAL, with multiple uses in the management of industrial processes, the control of machine tools, industrial robots, data transmission, medical research and in education.

The M-4001-CORAL, the smallest member of the family, has a memory of 64K and an operating speed of 350,000 operations per second. The M-4011-CORAL, with a managed memory, has two types of operations and an operating speed of approximately 600,000 operations per second. The M-4030-CORAL can expand its memory up to 4096K and is capable of being used in multiple operating systems with various programming languages.

In addition to the production of (central) computer equipment, there has also been development in the production of peripherals. Thus, the industrial process command and control systems in the machine building industry, the chemical industry and the metallurgical industry, which must handle data provided at high speeds, can use data collection equipment based on mini-computers. The Joint Production and Sales Company ROMCONTROL DATA in Bucharest, established

11 years ago by the Industrial Central for Electronics and Automation in Bucharest and the American company Control Data Corporation, currently independently produces four families of printers: high-speed printers, dot-matrix printers, magnetic disk printers and magnetic tape printers. These products are equal in all technical and qualitative parameters to the products of Control Data Corp. In fact, the companies exports, which represent an average of 50 percent of production, are achieved for the most part (70-80 percent) through the distribution network of the American partner company. The fact that a part of the terminals exported by ROMCONTROL DATA is incorporated into computer systems of certain companies (as Original Equipment Manufacturers) such as Honeywell Bull, CII - France, Siemens - the FGR, and ICL - England, speaks for itself regarding the quality of these products.

Video display terminals of the DF-2015 type in four functional types can also be encountered in different branches: machine building, transportation and telecommunications, light industry, education and public schooling.

In addition to hardware exports, the Institute for Computers and Information (ITCI), the main promoter of computers in Romania, creates software - programs and program packets - for foreign users, in accordance with the specific user needs. For example, we can note these systems:

- ISOLDA - an interactive graphics system for design work in the machine building industry;
- PIX - a system for the interactive design of printed circuits;
- ARTIS - a program packet "dedicated" to computer-assisted design work in architecture.

Recently, the ITCI took up the design and export of management information systems and process computer programming/control of production, thus expanding its activities to the entire range of software. Currently, the ITCI is involved in the diversification and updating of microelectronics production by way of moving to the production of the first Romanian personal micro-computers and the better use of Romanian inventions in the field of medical electronic devices, the diversification of production in the field of command integrated circuits, devices in the field of automatic digital electronics and computer networks. For the coming five year plan, the Romanian electronics industry is proposing a growing contribution to equipping Romanian vehicles and tractors with electronic command and control systems and to supplying maritime radio communications equipment. It will achieve computer tele-transmission networks and will develop automated flow management in the petroleum fields, in mines and in geological and meteorological observations. It will expand production of medical control devices (biothermal analyzers, electronographs, and anesthesia and breathing devices), and it will increase the variety of electronic consumer goods for the populace.

8724

CSO: 2700/22

ECONOMY

ROMANIA

NEW TECHNOLOGIES FOR INCREASED USE OF RAW MATERIALS

Bucharest REVISTA ECONOMICA in Romanian No 40,4 Oct 85 pp 6-7

[Article by Corneliu-Anton Coceasiu: "Opportunities for the Better Use of Raw Materials Through the Modernization of Technology"]

[Text] The chemical industry is a potential consumer of raw materials, materials and energy which it transforms into finished products for the other sectors of the national economy and into consumer goods to meet the requirements of the population, as well as into products to protect people's health. Currently, more than ever this industry has the task to better use raw materials and energy to produce certain products that are being imported. In order to attain this, there are programs, among other things, to promote new technologies, to modernize existing facilities for the reduction of consumption of raw materials, materials and energy per unit of product, to better use recoverable materials and place them back into the economic cycle and to start production on new types of products.

The technologies of the chemical industry, due to the multiple discoveries and innovations that have taken place throughout the world, are in a continuing process of change and updating. This involves the need to closely follow the evolutions that are taking place in one field or another and the rapid adaptation of facilities and technologies to the new technical progress that has taken place. Furthermore, as practice has shown, many improvements can be made to existing facilities and technologies through additions and modifications to certain technological phases or equipment without resorting to too large an investment effort. In the case of other improvements, it is necessary to radically change conventional technology that has become unprofitable at a given point, to a new, unconventional, modern technology that requires new investments and a financial effort greater than the original one.

For example, through the use of certain catalysts having a number of conversions and greater selectivity we can achieve - and international practice has shown this - increased efficiency concomitantly with a reduction in energy consumption, as well as collateral products. Thus, some research has shown that by using unconventional catalysts the working pressure in the production of ammonia can be reduced from 300 atmospheres to 50-60 atmospheres. Currently, new research is being done both throughout the world and in our country to create new catalysts that will work at lower pressures and even at atmospheric pressure. Similarly, some of our studies have shown the fact that in the case of oxo-alcohols, which can be produced

through a reaction with the hydroforming of olefines in the presence of a cobalt catalyst at temperatures of 140-180° C and 250-250 atmospheres of pressure, by using a catalyst of triphenylphosphine the process can take place under milder conditions at temperatures of approximately 100° C and pressures below 20 atmospheres. Additionally, the basic rhodium catalyst is more advantageous than that of cobalt since it has an activity level per unit of weight 100-1,000 times greater. In the case of the use of a solid support, it is easily recovered, being used under more moderate conditions. By using a rhodium catalyst, the raw material is not cracked and does not form alkanes, which results in a high efficiency in the desired product.

And, the effects of improving current technologies do not stop at these examples. The practices of our chemical combines show that for each product produced in continuously operating facilities there can be new technological improvements having positive effects on the efficiency of its facilities in the direction of better using raw materials and energy. Thus, methanol produced in old factories is made with a conventional catalyst on the basis of zinc and chrome oxides from carbon monoxide and hydrogen at a temperature of 300-400° C and pressures of 350-400 atmospheres. By introducing a ternary catalyst on the basis of copper, zinc and aluminum oxides and adapting the reactor to new operating conditions - a procedure successfully applied during the laboratory phase and which will be very rapidly introduced to series production - having temperatures reduced to 250-300° C and pressure cut back to 50-100 atmospheres. By adding carbon dioxide to the synthesis gas (carbon monoxide and hydrogen), there was even found to be an increase in the production of methanol. All these advantages will in practice lead to a reduction in material costs, with favorable implications for production costs.

In years past, researchers and specialist in the Romanian chemical industry directed their efforts towards finding new solutions for the purpose of replacing certain endothermal, high temperature chemical processes - in other words, ones having large energy usage - with those exothermal chemical processes having lower temperatures. In many procedures, for example, butadiene - the raw material for rubber - was produced through catalytic dehydrogenation in the presence of certain conventional catalysts through an endothermal reaction at high temperatures of approximately 600° C. At the same time, because of the high temperatures the selectivity and efficiency are low. By using certain new catalysts, for example, ferrite catalysts, through oxidation-hydrogenation at temperatures below 400° C and an exothermal reaction, one can produce butadiene having high selectivity and efficiency at a reduced level of raw material and energy consumption. Similarly, the use of biocatalysts and immobilized enzymes on a solid support has made possible the laboratory production of certain substances in a continuous process at temperatures of 30-40° C. In this manner, it is possible to obtain - under competitive conditions - ethanol from biomass, certain hormones, medicines and so forth, even some products produced by the petrochemical industry. The implementation of these procedures is possible, but requires investments in and technological changes to chemical facilities so that as much as possible by making less costly changes we can obtain the desired result in production.

One field in which the consumption of electricity is very high is the one of electrochemical processes. Thus, the consumption of energy in the production of carbide from calcium oxide and coke in conventional facilities is 3,000-3,400 kwh/ton of standard carbide. As a result of the studies carried out in our country and throughout the world, we have reached the conclusion that there is the possibility of replacing conventional electrodes with hollow electrodes, a move that would permit reducing energy consumption to approximately 3,150 kwh/ton of 80 percent carbide. Despite this, in both cases the reaction temperatures are strongly endothermal, of 1,000-2,000° C, which makes the production of carbide difficult. In order to make production of BASF carbide profitable, in a series of countries having traditions in the chemical industry, an autothermal procedure was developed instead of using the electrothermal procedure. This new procedure makes possible the reduction of theoretical energy consumption to 29 GJ/ton of 100 percent carbide, instead of 200-250 GJ/ton of 100 percent carbide in the electrothermal process. At the same time, the new procedure is justified by virtue of the fact that in addition to reducing energy consumption it eliminates the decomposition phase of reducing limestone into calcium oxide and carbon monoxide - a strongly endothermal process - with favorable effects on the cost per ton of carbide. Currently, research in our country is pursuing the introduction of this new technology in the appropriate chemical combines.

Certainly, there are many other opportunities to improve technologies in the chemical industry. Furthermore, keeping in mind the progress made in the world, it can be said that in many ways energy-intensive products have acquired - because of technological improvements - new values by virtue of decreasing the consumption of both raw materials and electricity. Along these lines, it is also worth noting that actions undertaken in our country to recover certain by-products or wastes. Thus, the recovery of certain useful components from catalysts used in a form in which they are to enter into the technological process (salts in solution), constitutes an example of an integrated recovery technology - production of catalysts. The recovery and reuse of residual gases either in the same process or as raw materials for other technologies constitute an improvement of technologies by way of a more judicious use of raw materials.

Many of the technological improvements that have been presented are used successfully even by the large chemical combines in our country. But, keeping in mind the requirements imposed by the diversification of production, the use of facilities and raw materials at higher levels of efficiency, and the maximum use of sub-products, it must be said that each unit has unused reserves. In general, the fact that facilities are automated and that technologies - at the time of start-up - have produced good levels of efficiency sometimes results in the slow introduction of certain improvements or certain new technologies. In this regard, it is clear to see the situations existing in the production of certain products (ammonia, methanol, electrolytes, sodium chloride, soda and the pyrolysis of certain petroleum fractions of ethane and prozene) where energy consumption remains high compared to the levels in those countries experienced in the chemical industry. Along this line, we also see the failure to use all the subproducts that are made in the production process.

Research in the chemical industry makes a large contribution with regards to the promotion of technical progress in the shortening of the process of implementing newer and newer technologies, in the improvement of existing technologies with large effects upon the reduction of material and energy consumption, in the diversification of production and in the better use of the available raw materials base at the highest possible levels. Furthermore, in order to intensify actions to modernize facilities in the chemical industry, a central group was created at the ministerial level, as well as the the industrial centrals, which are composed of specialists in production, research, design and training. The actions that are currently taking place will give the expected results without a doubt. The introduction of computers for the automated management of certain technological processes and the simulation of energy reserves will largely increase the level of using certain synthesis or separation columns in the petrochemical industry as well as in other sectors. Similarly, in the production of aluminum the automation of the process through the introduction of microprocessors will lead to the reduction of consumption of electrivity, anodes and so forth, and implicitly to the decrease in the per-ton costs for producing aluminum.

8724

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MILITARY

GERMAN DEMOCRATIC REPUBLIC

CIVIL DEFENSE MEASURES TO PROTECT LIVESTOCK OUTLINED

East Berlin SCHUETZEN UND HELFEN in German Vol 5 No 4, 1985 (signed to press 10 Sep 85) p 20

[Article by Dr Eberhard Karge]

[Text] The health of livestock is of decisive importance for the productivity and national-economic efficiency involving livestock. Health is a basic condition for continuous growth of food production and product quality. In past years, important progress has been made in the GDR to insure livestock health. Formerly widespread epidemics such as cattle tuberculosis and cattle brucellosis could be eradicated and this resulted not only in the growth of efficiency but also in an important contribution to the improvement of national health. It was also possible to protect GDR livestock, for several years now, from such destructive epidemics as hoof and mouth disease (MKS), swine fever (SP) and atypical fowl fever (aGP) even though there were in Europe in 1984 circa 250 cases of MKS, 1500 cases of SP and 400 cases of aGP.

However, the greatest danger for livestock comes, as before, from epidemics and parasitoses, especially because these strike at larger numbers of livestock which, in turn, might cause roadblock and transit restrictions and consequently considerable production losses.

A number of infectious diseases of animals endanger human health. Prevention of and fight against livestock epidemics is therefore a matter of national responsibility which demands active cooperation of all employees and collectives of the agricultural and food production industries and, in addition, of the entire GDR population. On the basis of good results in fighting and eliminating livestock epidemics in the GDR, the most important tasks presently are to eliminate, before the 11th SED Party Congress, the last traces of the TGE [not further identified] pig epidemic, of Aujeszky's Disease leptospirosis and clinical dysentery. In this process, special attention will be paid to the orderly implementation of sanitary measures and to the absolute prevention of the spread of these epidemic viruses. In cattle production, priority will be given to the successful elimination of enzootic cattle leucosis as part of the fight against epidemics. Of increasing importance is also to prevent the import of non-domestic livestock epidemic viruses into GDR territory. This danger is so great because our domestic livestock has no specific protection

against it and epidemics of this kind could result in high losses for the national economy. Also, there will be trade restrictions imposed on the countries in question on the basis of international agreements. Some of these livestock epidemics have already started in Europe. African swine fever has caused great damages in Spain and Portugal since 1960. It has also been discovered in France and Italy. In Belgium circa 25,000 pigs had to be killed in the first half of 1985. Similar tendencies are becoming evident for the blue tongue disease of sheep, for cattle plague, African horse killer and lung epidemic of cattle, and these developments are cause for greatest concern and consistency in livestock epidemic prevention.

The central location of the GDR in Europe results in increasing transit of live animals, livestock products and raw materials. In 1984 alone, 47,940 goods and animal transports with totals of 777,185 animals and 790,491 tons of livestock products passed through the borders of the GDR.

Prevention of and measures against livestock epidemics are directed by the government in the GDR and are made highly effective through the existence and unified implementation of veterinary laws that correspond to production conditions and productive forces of agriculture, and through the close and coordinated cooperation of government departments with unions, cooperative institutions and industries of the agricultural and food production industries. An orderly system of protective measures creates the conditions to deal effectively with epidemic viruses in the country and with the import of non-domestic livestock viruses. Trouble-free livestock production requires the following:

1. surveillance of international livestock epidemic development and strict control over traffic containing livestock, livestock products and raw materials that cross GDR borders and may be carriers of infectious materials.
2. management and organization of measures to prevent epidemics in livestock production enterprises.
3. the strict observance of vaccination schedules for livestock, and the continuous follow-up vaccinations of young and bought livestock.
4. a high state of alertness and effectiveness so that the operative-tactical management documents (livestock hygiene directives, livestock epidemic alert plans, antidisaster measures) are always kept up to date and correspond to concrete production conditions.
5. simulated epidemic outbreaks must be used to provide training in the cooperation between livestock farmers and production collectives, the managers of agricultural enterprises, veterinary assistants, and local government organizations including civil defense units in dealing with livestock epidemics.

The goal of this kind of exercise is to isolate completely, through coordinated efforts of local organizations in society and industry, any object within 2 hours of epidemics determination (x plus 2) and to apply hygienic epidemic safety measures in the respective community or town within 12 hours after an epidemic has been discovered.

8889/9312

CSO: 2300/96

MILITARY

GERMAN DEMOCRATIC REPUBLIC

BIO DATA ON BORDER TROOP OFFICER'S COLLEGE HEAD

Suhl FREIES WORT in German 29 Nov 85 p 1 of supplement

[Article by Joachim Meyer: "Border Trooper With Heart and Soul; on the 39th Anniversary of our Border Troops" first two paragraphs are a biographic sketch Maj Gen Harald Baer, presumably by FREIES WORT]

[Text] Stations in Life

Maj Gen Harald Baer was born on 2 March 1927 in what is now the Thuringian Lobenstein Kreis. His attendance of high school is followed by work in a forestry enterprise. In the fall of 1944, at age 17, he is forced into the fascist armed forces. After his return from war captivity in 1946, he again works in forestry. As a politically interested person, Harald Baer becomes an SED member in 1946. At the request of the party his road leads him to the Land border police in the same year. In 1948 he attends the Erfurt Land police school; appointment as an officer; in 1949, to the police academy in Dessau-Kochstedt; then again active border service. In 1950 attendance of the People's Police political school in Bad Freienwalde; in 1950-1951, faculty head in the Border Police central school in Sondershausen. From the end of 1951 to early 1953, chief of staff of the Border Police in Land Thuringen; 1953 to 1956, alert police commander in Dermbach/Rhoen. 1956-1957, study at the officer's academy in Dresden; 1957-1965, commander of a border brigade in Rudolstadt; 1965-1967, graduation from the Dresden Military Academy. 1967-1970, brigade commander in Magdeburg; 1970-1982, chief of a formation of the Border Troops; 1971, appointment as general; since 1982, commander of the officer's academy of the Border Troops.

Maj Gen Baer is a holder of high decorations. From 1958 to 1965, Maj Gen Harald Baer was a member of the SED Suhl Bezirk executive. During this time he commanded a formation of the Border Troops which secured a large part of the state border segment in Suhl Bezirk.

Every time period has its own face. The time immediately following 8 May 1945 did not display a red star for Harald Baer. Just shortly before the smashing of Hitler fascism forced into the war by the fascists, the young lad returned to his hometown of Titschendorf in the present Lobenstein Kreis with the vow of never again a uniform, never again a weapon in his hand.

But his village was located at the demarcation line to the Western zones. While hunger and deprivation were rampant in the country, profiteers and speculators crossed the worlds, feathering their nests from the misery of the people. Manufacturers tried to get away with complete factory installations. Among the forestry workers, who included Harald Baer, anger and indignation prevailed. He, endowed with the sense of justice of the father, a cabinet-maker and carpenter, shared the mood of the forestry workers. Justice and order had to prevail once again. That was also expressed by the comrades in the village and the Soviet soldiers stationed here. They not only talked about it, they did something about it. The young forestry worker noticed very quickly from this example where he belonged. He supported the comrades of the police for whom the uniform itself was not yet anything natural. What was important was to protect the consolidating antifascist-democratic order against old fascists who were still active everywhere, against sabotage and subversives from the Western zones.

In the meantime, himself a comrade and a member of the antifascist youth, Harald Baer joined the police, did not only talk about justice and order but did something about it. On the order of the party he went to the Thueringen Land police, border department. A decision had been made for life, only he did not know that at that time.

Every time period needs its champions. The time after 1946 placed unusual demands on Harald Baer. As a border policeman near Heiligenstadt in the Eichsfeld region, he was a member of a border post of 4 to 6 men which did not know any quiet service. It was not yet possible to secure the border all the time. The border commands were too weakly manned. They performed their service for 4 hours each time. A hard and often dangerous service. It was only here that the young lad from Titschendorf became fully aware of the task to which he had committed himself, grew the firm will to protect the land and the people against the plots of an enemy who in the West once again helped the old antihuman order back into power.

Finally he received responsibility over the comrades in addition to responsibility over the border sector. He was installed as head of a border command in the area of Tanna near Schleiz. Jointly with Soviet security forces they secured the border.

Class comrades and comrades in arms

Every time period demands proving oneself. The time of the end of the 40's was eventful and filled with restlessness for Harald Baer. He had to catch up with theoretical knowledge, thus attendance at the Erfurt Land police school followed. With the separate currency reform in the Western zones the idea of dividing the country was let out of the bag. Border security had to be strengthened. The enemy tried to smuggle in the old, now worthless money to us to start an inflationary wave. Harald Baer became chief of the border guard in Wolfmannshausen. "Then, in 1948, I performed my service for the first time in the present-day Suhl Bezirk," he recalls now. "We lived among the peasants. They were reticent towards any state power. On account of its obstreperous inhabitants, the fascists had wanted to eradicate Wolfmannshausen from the map

and resettle the peasants. But when the people from Wolfmannshausen noticed that we border troopers of the new state power were representing their interests, a relationship of trust developed between us in the course of time. Finally they even helped us secure the border. We were on the best of terms with the village youth."

Border trooper Baer went his own way. And this way had many stations. The duty stations changed and he rose in rank with his merits. Stations such as the activity in education and training of candidates of the border police in Meiningen, as a teacher at the Erfurt Land police school, as commander of the present-day "Florian Geyer" Border Troop unit, as head of the faculty at the central school of the Sondershausen border police and finally attendance of the Military Academy--all that and much more happened in the life of a communist who committed his entire being to development and success, to protection and security of our republic. It should also be mentioned that in 1952 at the time of the founding of the bezirk, Harald Baer was commissioner of Land Thuringen for support regarding border questions.

As commander of a formation of the Border Troops in the north of the republic, he was appointed major general in 1971. Since 1982 he has been commander of the officer's college of the Border Troops. Here he contributes his great theoretical knowledge but above all also the experience from a total of 32 years of practical border service. "We must imbue the officer student with the role and responsibility of the officer, the border trooper and the great importance of cooperation with the border population, so that all this becomes second nature to him," he says now. "To qualify the young comrades for this unity, that is fundamentally our task. Securing the border must be done by all the people living at the border."

Not to provide an opportunity to the enemy is a principle of our military protection of peace. Maj Gen Harald Baer has never acted any other way.

Every time period of course also has its happiness. The general has been married to his wife for 32 years, the same as the sum of the years of practical border service. Undoubtedly that is a coincidence but they are 32 years of having personally met the test and at the same time also happiness. Three daughters and three grandchildren have enlarged the family over the years. "More grandchildren are on the way," he laughs. It is not possible to find out whether or not he is serious about that but he may perhaps say later on here, too, "I would have never thought it possible."



[Caption] Maj Gen Harald Baer, commander of the "Rosa Luxemburg" Officer's College of the GDR Border Troops

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POLITICS

ALBANIA

ASSEMBLY COMMISSIONS PREPARE FOR SESSION

AU201313 Tirana ATA in English 0910 GMT 20 Dec 85

[Text] Tirana, December 20 (ATA)--In continuation of the preparations for the 8th session of the 10th Legislature of the People's Assembly, the permanent education and Culture Commission convened. The meeting was attended also by the member of the Political Bureau of the Central Committee of the PLA and vice-president of the Presidium of the People's Assembly Comrade Rita Marko and the vice-chairman of the presidency of the People's Assembly Comrade Jashar Menzelxhiu.

Tefta Cami, minister of education and culture and Ajet Ylli chairman of the Committee of Science and Technique reported in the commission of the realisation of the tasks of 1985 and on the main directions of the work in the respective sectors for 1986.

The deputies discussed on the reports and evaluated the achievements registered in these sectors in 1985, during which the movement to win the title "Standard Bearers of Implementing the Teachings of Comrade Enver Hoxha" has become a great source of inspiration and mobilisation for the working people of education, culture, art, science and technique and for the pupils and students to reach greater achievements than until now.

Besides, the Health Communal Commission was also convened. Attending it were Xhafer Spahiu, vice-president of the Presidium of the People's Assembly and Comrade Vitori Curri vice-chairman of the presidency of the People's Assembly.

The Minister of Communal Economy Kudret Arapi and the Minister of Health Ajli Alushani reported before the deputies on the realisation of the plan and budget of 1985 and presented the tasks envisaged by the plan and budget of the coming year.

The progress made in these sectors was pointed out in the commission.

Besides the commissions examined also other materials to be presented in the 8th session of the People's Assembly, made the analysis of their annual ACT/V/TY and adopted the work programs of 1986.

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POLITICS

ALBANIA

LEADERS AT REPUBLIC'S 40TH ANNIVERSARY CONCERT

AU121508 Tirana ATA in English 0730 GMT 12 Jan 86

[Text] Tirana, January 12 (ATA)--On occasion of the 40th anniversary of the proclamation of the republic, a festive concert organised by the Ministry of Education and Culture and the Executive Committee of Tirana District People's Council was given in the hall of the opera and ballet theater, last night.

Those present burst out into applause when Comrade Ramiz Alia, first secretary of the Central Committee of the party and president of the Presidium of the People's Assembly and Comrade Adil Carcani, member of the Political Bureau of the CPC of the party and chairman of the Council of Ministers, the members of the Political Bureau of the Central Committee of the party Hajredin Celiku, Hekuran Isai, Lenka Cuko, Manush Myftiu, Muho Asllani, Pali Miska, Rita Marko, Simon Stefani, the alternate members of the Political Bureau of the Central Committee of the party Besnik Bekteshi, Foto Cami, Ilambi Gegprifti, Prokop Murra, Qirjako Mihali, the secretary of the Central Committee of the party Vangjel Cerrava, the first secretary of the Tirana District Party Committee Piro Kondi, members of the Central Committee of the party, the Presidium of the People's Assembly and government entered the hall.

Present were also heads of the diplomatic representations accredited to the People's Socialist Republic of Albania.

The songs of this concert were devoted to the party and the respected and unforgettable leader Comrade Enver Hoxha, to our republic, the magnificent victories attained over the years of peoples power, to our new man and the happy life. Alongside the professional artists the amateur artists from different districts of the country interpreted beautiful items.

Following the nice dance "Albania is in great festival today," executed by the group of folk song and dance ensemble, all the artists in the end of the concert sang the song "pick in one hand and rifle in the other."

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POLITICS

ALBANIA

MEHMET ELEZI REPORT ON YOUTH ORGANIZATION

AU011900 Tirana ZERI I RINISE in Albanian 25 Dec 85 pp 1, 3, 4

[Report delivered by Mehmet Elezi, first secretary of the Central Committee of the Albanian Union of Working Youth, at the plenum of the Central Committee held in Elbasan on 23 December: "The Internal Life of the Youth Organization and Measures To Further Enliven It"]

[Excerpts] An organized survey carried out recently among various categories of young people provides food for thought in regard to the interminable variety of interests of our young boys and girls, their tastes and desires, in various fields of social, political, and cultural life. They differ in accordance with age-groups, professions, sex, cultural level and social status, but they are always wide-ranging and of sound substance. This is another indication of the powerful growth and development of the personality of our younger generations, and of the constant enrichment of their spiritual life, which we encounter daily. They are also highlighted in the movement to become standard-bearers of the teachings of Comrade Enver Hoxha.

The youth organization is not a casual congregation of boys and girls of approximately the same age. It gathers around itself boys and girls who are united primarily by a revolutionary ideal, by fundamental interests. The youth organization is a powerful instrument of the party, a hearth for the revolutionary education of its members, and for their mobilization in implementing its program. The Albanian Union of Working Youth educates the youth as fighters for socialism, it shapes them with the feelings of patriotism with a new attitude toward work and common property, and with love for knowledge and culture. It regulates its internal life on the basis of the norms and principles contained in its statute, which embodies the party's line concerning work with youth. The internal life of the organization is not an aim in itself, it is not purely "internal." It is connected with all the country's problems, it has a meaning only in the sense that it elevates the role of youth as the right hand of the party, as a striking, implementing and transforming force.

It is precisely because we have marched on this road that we have now a powerful, authoritative, and militant organization, loyal to the party unto death, an organization that is politically and organizationally well consolidated.

At a number of previous plenums we have discussed and set out tasks to ensure that the life of the organization should better match the present-day standards of the youth and the level of the country's development. We have criticized manifestations of fossilization in the life of the organization, cases of merely imitating the party organizations or their other instruments, forgetting the originality and peculiarity of the youth; we have criticized cases when the life of the organization limits itself to a schematic triangle; ordinary meeting, education and action; we have criticized cases of the use of a cold, official, and bureaucratic language which does not attract the youth, but, on the contrary, drives it away. We have also stressed at the same time that the struggle against these manifestations must always be waged correctly, from sound and clear positions, as the party instructs us. Any liberal understanding and interpretation that this means emancipation from certain essential norms and regulations of the organization, would be harmful and fraught with consequences.

The progress made is obvious, but the aforementioned weaknesses that we have criticized, although they are much more limited, continue to be felt. We still do not know properly the demands and desires of youth, and we sometimes tend to take them en masse, all in the same way. We are still burdened by traditionalism. It happens sometimes that before a competition or any other kind of activity, old files are reopened or the "older" members are asked: how was this done previously? Former experiences are obviously valuable, but not in order to be mechanically applied. Every stone in its place, as the popular saying goes. That experience was valuable in its time and under different conditions; what is needed now is that it should be deepened and enriched, that we should work with more imagination, that we should be contemporary and creative. As Comrade Ramiz Alia has stressed: "The need for perceptible improvements in the concept, methods, and practices of the work of the youth organization is obvious."

Fossilized practices bore young people. Let us take the meetings, for example. Beginning with the meetings of the basic organization and up to conferences, they are essential, as is also defined in the statute. They are of considerable value when they are carefully and earnestly prepared, when they define tasks that ask to be fulfilled.

But what indicates the earnestness of a meeting? There are still comrades who view this from some formal angles. They see it in "great" and continually repetitious themes, long reports and written discussions, in "prologues" and "epilogues" and mounted quotations.

Liberalism and lack of control by the youth organization committees may be one cause. But the official, nonintimate atmosphere created at some meetings, where discussions on the same old questions take place in a generalized manner, where the same people are criticized over and over--all this will undoubtedly lead to a numbing of the organization, and young people will feel like aliens. If a problem is tackled at the organization's meeting, no matter how important it may be, there is no reason why one should deal with that very same problem only a month or a few months later. It is more correct to define concrete tasks in the first analysis, so that the secretary and the forum members should

go among the young people, not as elected officials, but like comrades; so that they should work together with them and be in the lead, and so that they should adopt measures to be implemented. Then, at the next meeting, deal with something else, with a social problem, with education, with traditions, cultural activities, the mastering of science, and so forth. One thus avoids one-sidedness and the range of action and prestige of the organization is thus enhanced.

There are common problems in the youth organizations, but there are also particular problems according to categories. Among the young workers, for example, there are problems concerning labor discipline, problems related to skills and among some of them questions pertaining to behavior and manner of dressing. The boys and girls who complete their secondary education in the village agricultural schools must do more to put into practice the knowledge that they have gained; at the same time, more careful and continuous work is required with regard to the protection of property and to prevent the revitalization of some backward customs. More needs to be done in the schools concerning the motivation of learning and the acquisition of durable knowledge; there are manifestations of tutelage and formalism in the internal life of the youth organizations of schools, as well as in military units and in the border guard units. These and other problems must better become objects of the work of the organizations. Dealing with these problems in a sound spirit, adopting clear decisions that are accompanied by action would better respond to the party's instructions and would further enliven the life of the organization, and its authority would increase and be strengthened.

The inclinations of young people, their interests, are the most varied. It is therefore obvious that these cannot be confined to meetings of the organization. Comrade Enver has stressed that the meetings of the organization are not and must not be the only form of work with youth; this work must be varied and distant from old stereotypes and schemes which fail to arouse interest.

Monotony and onesidedness in the internal life of the organizations are created not only by repetition and formalism, but also by failure to find a specific angle of tackling the problems. This is not merely a technical matter. It is connected with the question of the fruitfulness of the work, with the question of consolidating its substance. Commands do not set youth in motion. Youth is not affected by dry language devoid of arguments. On the contrary, when one is able to find an "angle," when one touches a "chord," as the saying goes, then youth will go through fire.

There are numerous paths leading to the heart of the youth. Simplicity is one of them. But let us avoid a vulgar conception of this magnificent trait; sitting down on the mat or in the dust, putting one's arm across the chap's shoulder, this alone is no proof of simplicity, all this can be artificial.

Simplicity is indicated in respect for young people. One must always be near them, work and live with them, listen to them attentively, make every effort to persuade them. If young people are right, admit it to them, and match your words with deeds. Enter into their spiritual life in order to find the causes, the motives. "If a young person is undisciplined," Comrade Enver has said, "the reason may lie in that he has some worries or perhaps has not pro-

perly understood the task politically." It is precisely these reasons that the activists, our men and women comrades, must know at all times.

People, and particularly young people, are seeking warmth in their daily work. Let us strengthen criticism and self-criticism of shortcomings continually, without making any concessions, in the daily life of the youth organization or in the forum. But let us do this tactfully and intelligently, grasping the positive side of youth.

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CSO: 2020/78

POLITICS

ALBANIA

AMNESTY PROCLAIMED ON REPUBLIC ANNIVERSARY

AU100808 Tirana ATA in English 0802 GMT 10 Jan 86

[Text] Tirana, January 10 (ATA)--The press carries today the decree of the Presidium of the People's Assembly on the amnesty on occasion of the 40th anniversary of the proclamation of the republic, which says among the other things:

On [the] occasion of the 40th anniversary of the proclamation of the republic, taking into consideration the further strenghtening of the socialist order, the sound moral-political situation of the country, the steel like unity of the people round the party as well as the strengthening of the international position of the People's Socialist Republic of Albania, in order to help the citizens who have perpetrated penal deeds to take active part in the political, economic and social life to the benefit of the homeland, relying on the Article 77 of the Constitution, on the proposal of the Council of Ministers, the Presidium of the People's Socialist Republic of Albania issued this decree.

The decree stresses among the others that from this amnesty profit all the persons sentenced with deprivation of freedom up to 2 years, reeducation through work, on condition or fine, from it profit all the women sentenced to 20 years or less than 20 years of deprivation of freedom, all the sentenced persons, who are up to 18 years of age, all the persons sentenced to deprivation of freedom, who until January 13, 1986 have to pass 1 year from their punishment, etc.

The decree underlines that all the persons who profit from amnesty and are released, must go home, to work there where the homeland is in need of them in order to become worthy citizens of the People's Socialist Republic of Albania. For this, the society and power organs must give the necessary aid to them.

The decree enters into force on January 13, 1986.

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CSO: 2020/78

POLITICS

ALBANIA

BRIEFS

VOLUME 48 OF HOXHA'S WORKS--Tirana, January 11 (ATA)--The 48th volume of the works of Comrade Enver Hoxha came off the press and was put to circulation. The volume contains materials of January-May 1972 period, most of which published for the first time. The speech in the plenum of the party committee of Mat District "Socialism is built by the masses, the party makes them conscious," the contributions to the discussion in the meetings of the Political Bureau and the Secretariat of the CC of the PLA: "The workers should render account for the work they do and they should be deservedly renumerated," "Some questions regarding the comprehension and application in practice of the directives for the work of the party with the masses," "Knowledge and science should be assimilated by the masses," "The execution of contracts should be based on the realisation of the plan of agricultural and livestock production," etc., take an important place in the volume. The volume contains also contributions to the discussion in the meetings of the Presidium of the People's Assembly, conversations with workers, cadres, Marxist-Leninists and foreign friends, articles, etc. [Text] [Tirana ATA in English 0750 GMT 11 Jan 86 AU] /8918

PARTY PLENUM CONVENES--Tirana, December 28 (ATA)--The 13th plenum of the Central Committee of the Party of Labour of Albania convened on December 26-27, 1985. It examined the report of the Political Bureau of the Central Committee entitled "The experience gained in the Struggle for Overcoming the Difficulties This Should be Utilized for the Realisation of 1986 Plan," delivered by the first secretary of the Central Committee of the Party of Labour of Albania, Comrade Ramiz Alia. After discussing extensively on the report presented, the plenum of the Central Committee endorsed it unanimously and adopted the respective decisions. The 13th plenum of the Central Committee of the Party of Labour of Albania. Tirana, December 27, 1985. [Text] [Tirana ATA in English 0900 GMT 28 Dec 85 LD] /8918

POLITICAL MEMBERS ATTEND CHILDREN'S PARTY--Tirana, December 30 (ATA)--Yesterday more than 5000 little children and pioneers of Enver of the capital attended a festive concert organised in the "Partizani" sports palace on occasion of the popular new year festivity. They were accompanied by their parents and teachers. Present were also the member of the Political Bureau and secretary of the Central Committee of the party, Comrade Lenka Cuko; the member of the Political Bureau of the Central Committee of the party and vice-president of the Presidium of the People's Assembly, Comrade Rita Marko; the alternate

member of the Political Bureau and the vice-chairman of the Council of Ministers, Comrade Besnik Bekteshi; the secretary of the Central Committee of the party, Comrade Vangjel Cerrava; the minister of education and culture; Tefta Cami; the first secretary of the District Party Committee, Pirro Kondi; the president of the TUA [Trade Unions of Albania] General Council, Sotir Kocollari; the first secretary of the LYUH [Labor Youth Union of Albania] Central Committee, Mehmet Elezi, and other comrades. [Text] [Tirana ATA in English 0750 GMT 30 Dec 85 AU] /8918

LAOTIAN PRESIDENT RECEIVES DELEGATION--Tirana, December 27 (ATA)--The president of the Lao People's Democratic Republic Souphanouvong received the delegation of the Ministry of Foreign Affairs of the People's Socialist Republic of Albania, led by the Vice-Minister Sokrat Plaka, with whom he held a warm friendly talk on December 26. During the friendly visit to Laos, talks were held and opinions were exchanged between the delegation of the Ministry of Foreign Affairs of Albania, led by the Vice-Minister Sokrat Plaka and the delegation of the Ministry of Foreign Affairs of Laos, led by the First Vice-Minister Camphai Boupha on the further development of the friendly relations between the two countries as well as on some problems of the international situation. Likewise, our delegation was received by the vice-chairman of the Council of Ministers and Minister of Foreign Affairs of the PDR of Laos Phoun Sipasut. Attending these meetings was also the ambassador extraordinary and plenipotentiary of the PSR of Albania in Laos, Syrja Laze. [Text] [Tirana ATA in English 0930 GMT 27 Dec 85 AU] /8918

BEKTESHI, CERRAVA AT SONG FESTIVAL--Tirana, December 29 (ATA)--The third and last concert of the 24th song festival over radio-television was given in the hall of the opera and ballet theater of the capital yesterday evening. Eighteen best songs from a total of 32 were performed yesterday. Attending were working people of work and production centers, various institutions, artists, composers, youths, etc. Present were also the alternate member of the Political Bureau of the Central Committee of the party and vice-chairman of the Council of Ministers, Comrade Besnik Bekteshi, the secretary of the Central Committee of the party, Comrade Vangjel Cerrava, the minister of education and culture, Tefta Cami, the first secretary of the Tirana District Party Committee, Pirro Kondi and other comrades. [Excerpt] [Tirana ATA in English 0930 GMT 29 Dec 85 AU] /8918

LEADERS THANK LAO COUNTERPARTS--Vientiane, January 10 (KPL)--The leaders of Albania wished the Lao people new successes, progress and prosperity, and expressed their conviction on the development of the existing friendly relations between peoples of Albania and Laos. In their joint message of thanks, Ramiz Alia, first secretary of the Central Committee of the Party of Labour of Albania [name of party as received], president of the Presidium of the People's Assembly, and Adil Carcani, chairman of the Council of Ministers of the SPR [People's Socialist Republic] of Albania, thanked Kaysone Phomvihane, general secretary of the LPRP CC [Lao People's Revolutionary Party Central Committee] chairman of the Council of Ministers of the Lao PDR [People's Democratic Republic], and Souphanouvong, president of the Lao PDR, for their greetings on the occasion of the 41st National Day of Albania. [Text] [Vientiane KPL in English 0906 GMT 10 Jan 86 BK] /8918

PREPARATIONS FOR 8TH SESSION--Tirana, December 29 (ATA)--In continuation of the preparations for the 8th session of the 10th Legislature of the People's Assembly, the Permanent Construction-Communication-Post Services Commission was convened. The deputies of this commission listened to reports by the construction minister, Farudin Hoxha, the Communication Minister Luan Babameto and the general director of post services, Perikli Pani on the realisation of the plan and budget for 1985. Explanations were also given regarding the greater tasks envisaged by the plan and budget of the coming year. The Juridical Commission was convened, too. In these meetings the commissions emphasized the measures that should be taken for the analysis and realisation of the important tasks set by the 13th plenum of the CC of the party. They also examined the other materials and decrees, which will be presented for endorsement to the People's Assembly, analysed their work during the past year and adopted the programmes for their activity during 1986. The meetings of the commissions were attended by the vice-president of the Presidium of the People's Assembly, Comrade Xhafer Spahiu, the vice-chairman of the presidency of the People's Assembly, Comrade Jashar Menzelxhiu and the secretary of the Presidium of the People's Assembly, Sihat Tozaj. [Text] [Tirana ATA in English 0730 GMT 29 Dec 85 AU] /8918

CSO: 2020/78

POLITICS

HUNGARY

FORMER PREMIER SAYS KADAR NO PUPPET

Zurich DIE WELTWOCHTE in German No 49, 5 Dec 85 pp 13-15

[Interview with former Hungarian Premier Hegedus by Herbert Boeck about the 1956 uprising, gulash communism and the Soviets: "Gorbachev Can Learn From Our Course of Reform"; first paragraph is WELTWOCHTE introduction]

[Text] Andras Hegedus, Hungarian premier from April 1955 to 23 October 1956, on 26 October 1956--2 days after the Russian invasion--together with the first secretary of the party, Erno Gero, signed the document calling on Soviet troops to come to Hungary to put down the (first) uprising. Gero had provoked the unrest himself by singing the praises of the friendship with Soviet Russia at a peaceful demonstration. By the time Imre Nagy, the newly appointed premier, promised democratization and an opening up as soon as the protest had died down, the Russians had already arrived in the country. Nagy managed to induce them to withdraw, but when he proclaimed Hungary's withdrawal from the Warsaw Pact and neutrality on 1 November, the Soviet forces went on the attack again and put Janos Kadar at the head of the Hungarian Government. Hegedus retired from politics and went to Moscow to study sociology and philosophy. He slowly dissociated himself from Stalinism. He was interviewed by DIE WELTWOCHTE in Budapest.

WELTWOCHTE: Dr Hegedus, is Kadar really no more than a puppet, as many Hungarian oppositionists like to call him?

Hegedus: I am familiar with those views, and I think they are quite wrong. Janos Kadar continues to be Hungary's most important and powerful politician, his opinions continue to be heeded, and above all he is not at all the kind of man who would act as a puppet for some people behind the scene. In other words, whoever thinks that Kadar has allowed the reins to be taken out of his hands is seriously mistaken. He continues to be the boss, and that is also accepted by everyone in the party.

WELTWOCHTE: Time and again various names crop up when people talk about possible successors to Kadar. Which personage has the best chance?

Hegedus: The question of succession is of course also the subject of lively debate at the highest level here in Budapest. People do realize that Kadar is not all that young any more, and of course the people and party wonder who

will be the one to follow. It is significant, however, that the question of succession, though it has been on the agenda for some years, has remained unanswered. Neither the government nor the party know of a successor. But perhaps they don't really want to know, for Janos Kadar is not the kind of man who just goes ahead and retires. Which, in my opinion, would be entirely the wrong thing to do. Neither the party nor the people want that. I think there will be no successor during his lifetime. Janos Kadar will remain general secretary of the Communist Party until he dies.

WELTWOCHER: Another Tito, in other words--and is the same chaos as now prevails in Yugoslavia in the cards for Hungary?

Hegedus: Of course not. Such dreams or fears (depending on what side the political observers are on) had better be forgotten again at once. But of course the government and party have provided for all possibilities. One thing is certain: there won't be any so-called "strongman" any longer. If something should happen to Kadar today, the Central Committee of the Hungarian Communists would assume Kadar's role and lead the country as a collective. Of course there will be a *primus inter pares*, but without the kind of plenitude of power which someone like Janos Kadar has been able to wield. The Central Committee is bound to be in power for several years--long enough, at any rate, for a man of the new, younger generation to be able to fill the role of general secretary.

WELTWOCHER: Do you share the fears of Western observers, couched in jocular language, that "once Janos-bacsi is no longer the boss of the merriest barracks of the Eastern bloc," there will be less to laugh about in Hungary too?

Hegedus: Everyone ought to be aware that it is possible but not inevitable for the reforms undertaken in the past few years to continue. Janos Kadar, though, has done everything possible in his lifetime to see to it that the efforts toward reform and liberalization do not come to a standstill. For instance, he has eliminated all critics of his who were opposed to reform and would have liked nothing better than to put a stop to these reforms. Hungary is in its third period of reform today, and this will continue.

WELTWOCHER: What do you mean by your reservation that the efforts for reform are not bound to continue?

Hegedus: What I mean is that at present we are merely in a stage of toleration, that all liberties which at present distinguish Hungary from the other countries of the Eastern bloc, whether in the cultural or in the economic field, are only tolerated. That means that they are not constitutionally guaranteed. It is therefore far easier to implement a political change, of course, than if everything were embodied in the law. I'll give you an example. As recently as 4 years ago any private taxis were illegal in Hungary. They were tolerated, but taxi entrepreneurs could be punished since their activity was prohibited. In a number of cases penalties were meted out. Now private taxis are legal, and there are three companies comprising about

6,000 private taxi entrepreneurs. In this small field the next step has already been reached--the one from toleration to legalization. In many fields this stage has not yet been reached.

WELTWOCHÉ: And the Soviet Union is standing idly by while a country under its sphere of influence increasingly approximates the West? When is Mikhail Gorbachev going to say, "All right, that is definitely it"?

Hegedus: Only a political dreamer might think that our small country could paddle its own canoe and do as it pleases. Of course Hungary's independent way--successful notwithstanding all the objectionable deficiencies--is not possible without the Soviet Union's toleration. But quite obviously one knows, far better here than in any other state of East Europe how to convince the Soviet Union that the path taken is right. Only a fool could play with the thought that sooner or later Hungary might become a Western democracy. Not only would this be highly dangerous for all of East Europe; it would lead to civil war. Not only would all reforms be withdrawn, but the future of all East European countries would be blocked for years, perhaps for decades. Politicians who want to be taken seriously can be successful only if they stick to existing realities.

WELTWOCHÉ: Concretely speaking, what mistakes must not be made if Gorbachev's goodwill is also to be retained in the future?

Hegedus: It happens to be a fact that Hungary is part of the power sphere of the Soviet Union. And anyone who like Kadar sticks to the internal rules has the opportunity to be allowed to operate undisturbed. Whether this can be done as successfully as the Hungarians have managed to do is up to the politicians of the various East bloc countries. Whether in Hungary in 1956 or in Prague in 1968 or in Warsaw in 1981, invariably the same mistakes were made. The politicians concerned quite simply had lost their sense of reality. If I give the Soviet Union the impression that I would like to break out of its sphere of influence, it will not permit it regardless of who is in power there.

Let me give you an example. My successor as Hungarian premier in October 1956, Imre Nagy, made three fatal mistakes which did severe harm not only to Hungary but to the entire Eastern bloc. We might already be much farther ahead if Imre Nagy had not destroyed Hungary's reconstruction in a matter of 3 days. On 28 October 1956, entrusted with the confidence of the entire Soviet leadership, he was named premier. And already on 30 October 1956, he of all people, who was trusted by the Soviets, demanded 1) withdrawal from the Warsaw Pact, 2) neutrality for Hungary, and 3) parliamentarism along Western lines. That meant the end of everything. In brief, the prevailing realities were not taken cognizance of. As long as Janos Kadar and the government adhere to the alliance with the Soviet Union, Gorbachev, will certainly be pleased to come to Hungary again--not as the leader of an occupying power but as general secretary of the CPSU praising Hungary for its economic achievements.

WELTWOCHÉ: The Hungarian way a model for the general secretary of the CPSU, for the wave of reform in the Soviet Union?

Hegedus: Mikhail Gorbachev is seeking a special way of modernizing the Soviet Union. We--the Hungarians--have always been the imitators as far as reforms were concerned. In the Soviet Union, they are at the beginning of a period of big reform. I am sure that the Hungarian experience is very important for Mikhail Gorbachev, who certainly would like nothing better than for Hungary's economic successes also to become visible in other countries of the Eastern bloc.

WELTWOCHER: The Hungarian Government itself admits that economic successes no longer are occurring to the extent they would have liked. Do you think this also represents a threat to further reforms?

Hegedus: The standard of living reached its peak in 1980. After that there were hardly any rises any more; on the contrary. Economic inequality increased; that is, a minority became richer at the expense of the majority, and the poor became poorer. Only part of the population really was able to take advantage of the reforms, whereas another part of it was not. As a result a paradoxical situation almost came about a few years ago: the politicians wanting reforms almost were stopped by their own party base, which would have led to a counterreform. Why? Because, of all people, the activists of the party, of the authorities, simply had no time also personally to take advantage of the reform. While they worked in behalf of the party and the institutions by the sweat of their brow, they had to look on as a neighboring couple, for example, by taking over a small private business or by doing jobs on the side, made five or six times as much as money as one would normally get in the way of monthly wages.

WELTWOCHER: How much scope for further reforms is in fact left to the Hungarians by what you call the existing realities?

Hegedus: First of all, those in power must at long last accept the fact that conflicts are a perfectly normal situation, and they must not invariably consider them, as it were, a minor revolt against their positions. Secondly, it is no wonder that at the last parliamentary elections it was, of all people, a lot of trade union officials who lost out, simply because a great many people feel that they are only seemingly being represented by the so-called unions. Therefore, like the youth movement, the unions must also become more independent from party and government. And ideologically it is necessary to do away with the dominance of a great many old theses. The positive thing about this is that more and more members of the new generation are moving up into important positions and thus see to the necessary renewal. And they know that all this is possible only within the framework of the existing realities.

Applied to Hungary and all Eastern bloc states, this means that all the participants, rulers and people, must agree to a compromise--what I call a compromise Mikhail Gorbachev apparently is ready to accept completely.

WELTWOCHER: Mr. Hegedus, what kind of life does one lead in Budapest as a former premier of Hungary who does not hold back with criticism of those in power?

Hegedus: Look, Janos Kadar and his wife live only a couple of blocks away and maybe that is why I continue to be in good shape. But seriously: I have been in retirement for 10 years, may go abroad every now and then, and also have a large family which occupies me fully. I have 6 children--5 sons and 1 daughter--ranging from 33 to 38 years, 12 grandchildren--7 boys and 5 girls-- and, last but not least, my loyal wife Susanna, to whom I have been married for 40 years.

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POLITICS

POLAND

PARTY WORK IN ARMED FORCES AUDITED

AU221423 Warsaw ZOLNIERZ WOLNOSCI in Polish 16 Jan 86 pp 1, 2

[Report on meeting held at the headquarters of the Main Political Administration on 14 January to discuss results of a control of party work in the armed forces]

[Text] The results of an audit conducted in military party cells and organizations by the PZPR Central Auditing Commission were summed up at a meeting held at the headquarters of the Main Political Administration of the Polish Armed Forces on 15 January. The meeting was attended by General on Arms Jozef Baryla, PZPR Central Committee secretary, and Kazimierz Morawski, chairman of the PZPR Central Auditing Commission.

The meeting was chaired by Tadeusz Szacilo, chief of the Main Political Administration of the Polish Armed Forces. It was attended by Jozef Wacław Skoczylas, deputy chairman of the PZPR Central Auditing Commission, and commission representatives Jozef Oleksy, Leszek Grzybowski, and Krzysztof Slubolski.

PZPR committee first secretaries from military districts, branches of the armed forces, tactical associations, central institutions, academies and higher officers' schools in which commission teams worked were invited to the meeting.

The commission conducted an examination of selected problems concerning the operation of military party cells and organizations. It conducted a particularly thorough examination of progress in the implementation of social and training tasks stemming from the party program and party resolutions and of the observation of norms and statutory principles by soldiers who are members of the PZPR.

The results of the control, which were presented by W. Skoczylas and L. Grzybowski, showed that party work since the Ninth PZPR Congress had been directed at the systematic implementation of the congress resolution, Central Committee plenum resolutions, and Politburo decisions.

Party organizations and cells in the armed forces played a leading role in creating a high standard of political and moral attitudes, model party and army discipline, and socialist relations between people.

The past 5 years were another period of qualitative and quantitative development for military party cells. Party committee and primary party organization initiatives aimed at improving the forms and methods of intra-organizational work deserve particular mention. The concrete and systematic nature of this work, cohesion in the work of commanders and the party political apparatus, and model solutions to information circulation must all be underscored.

Military party cells and organizations have definite achievements to their credit. These achievements are the result of a creative approach and of the ability to be critical and constructive at the same time in the assessment of one's own work. Thanks to this, military party cells were able to effectively mobilize and inspire soldiers' collectives and communities to perform their service and work well.

The members of the commission stressed that these accomplishments were evidence of good party work and are of importance for the 10th party congress preparations. The achievements made so far create opportunities for the further improvement of PZPR cell and organization work in the armed forces.

The commission's assessment also contained critical observations. These observations concerned the manner in which resolutions adopted by superior bodies are conveyed to primary party organizations, the extent to which technical means are used in party work, and more effective ways of conducting party work among reservists.

During the course of the discussion, the commission chairman Kazimierz Morawski stressed that the style and effectiveness of party activities aimed at implementing Central Committee resolutions is appropriate, and that planning and organizational activities are exemplary. The unity of party and political work in fields such as ideological and upbringing activities, especially in the schooling of basic service soldiers, party and youth association schooling, and instruction courses deserves particular mention. The "Soldiers Meeting Days" initiative, during which the party-service activists from ministry of national defense central institutions visit party cells and soldiers' collectives, deserves particular mention. The substantive, organizational, and methodical implementation of all the undertakings serving the implementation of the decisions taken at the Ninth PZPR Congress must also be highly regarded. The results of the control reveal that army principles of operation and solutions used in the political department of the armed forces might be profitably used by other PZPR organizations.

The meeting was addressed by General of Arms Jozef Baryla, PZPR Central Committee secretary, who discussed current problems in party work in the armed forces against the background of the general situation in the country and in the party. He stressed the great importance of the pre-congress campaign for working out a methodology of operation in achieving social goals and intra-party tasks. He devoted much attention to the ideological struggle which calls for the further consolidation of forces in the battle against internal and external ideological enemies. Referring to the results of the

control, the Central Committee secretary set out tasks for the consistent implementation of post-control decisions. He attached particular importance to the need to further develop and strengthen contacts with lower level party organizations and local communities, and especially with youth.

Closing the meeting, Division General Tadeusz Szacilo thanked the members of the commission for a competent, objective, and penetrating assessment of the control of military party cells and organizations. The suggestions, observations, and proposals resulting from the control will be used with a view to further improving the ideological and organization work of PZPR cells in the armed forces.

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POLITICS

POLAND

WARSAW SECRETARY ON PARTY WORK, INTELLIGENTSIA

AU211414 Warsaw ZYCIE WARSZAWY in Polish 16 Jan 86 pp 1, 3

[Interview given by Janusz Kabasiewicz, first secretary of the Warsaw PZPR Voivodship Committee, to Teresa Gawerska and Zdislaw Morawski--date and place not given]

[Excerpt] [Gawerska, Morawski] Let us begin our conversation by discussing a subject that the first secretary is closely concerned with, that of the Warsaw party organization. What part will the party organization play in the campaign leading up to the 10th PZPR Congress scheduled for June?

[Kabasiewicz] The Warsaw party organization has more than 137,000 members. More than 3,000 new candidate members were admitted into the party last year, of whom more than 40 percent were young people. The most difficult period in the restoration and broadening of our links with the workers' class and all the inhabitants of our city is already behind us. At the present time we are concerned with consolidating and preserving this process. Our organization's ideological and political strength was protected and fortified by the program adopted at the Ninth PZPR Congress. We gained much valuable experience. During the course of the pre-congress campaign we want to develop and consolidate this experience. This year, the year of the 10th congress, should therefore be a year of intensive ideological and political work, a year for the further enhancement and strengthening of our influence in every community, and at the same time it should be a year for putting things in order.

[Gawerska, Morawski] What do you mean by that?

[Kabasiewicz] We will have to take stock of what has not been implemented so far from among the resolutions and proposals recorded during Sejm and people's council election campaigns in places of work, housing estates, communes, in various districts of the city, and in the city as a whole. In doing so, we shall devote particular attention to what is the most important area of party work at the present time: the economy. Economizing, scientific and technological progress, making good use of work time--these are the fundamental objectives of our party work. We are not, of course, forgetting other matters such as the need to buttress the principles of socialist morality, and the fight against social pathology, and unjustified self-enrichment.

In carrying out our work this year, our slogan ought to be: fewer proposals and more effective work.

The Warsaw party organization will make a contribution to the debate on the draft party program in line with the extent of its potential and capabilities. The capital is also preparing to host the congress. I think it will perform the role of host well.

[Gawerska, Morawski] Warsaw has a large intellectual and artistic community. How does the capital's party organization view the situation in this community and its work in this field?

[Kabasiewicz] There are about 60,000 scientific research workers employed in Warsaw's colleges, in departments of the Polish Academy of Sciences, and in various other research institutions. This figure represents about one-third of Poland's total resources in this area. The capital is also a very important cultural center. These facts attest to Warsaw's important place in the arts and sciences.

[Tawerska, Morawski] Are these resources used to the full?

[Kabasiewicz] We believe that the distribution of scientific manpower resources in Warsaw is not the most appropriate. The cadres with the highest qualifications, professors, and docents work primarily in colleges: 23 percent of them are employed in educational institutions. We know that in many countries which are more developed than our own, cadres with the highest qualifications are employed directly at industrial research centers. This type of allocation of manpower resources guarantees that the results of research work are not purely theoretical but serve technological progress in an essential way, and in so doing help to improve the satisfaction of social needs.

I have mentioned this because we are concerned about making the best possible use of the scientific and research resources which Warsaw has at its disposal. I believe that conditions for achieving this do exist. The respect and regard with which the authorities treat the scientific and artistic communities found expression in the resolutions passed at the 19th Central Committee plenum which we are in the process of implementing systematically.

[Gawerska, Morawski] And how do you view the situation in this community?

[Kabasiewicz] We are observing the principles of dialogue and accord. That is why we understand the quite recent frustrations and long-standing complaints which exist in certain sections of this community. However, an understanding of the situation does not mean that one can close one's eyes to the fact that some sections of the communities in question have become the subjects of particularly clear attempts at penetration by domestic and foreign political opponents. As certain readers of ZYCIE WARSZAWY no doubt know, it was found that certain groups of people were clearly failing to observe the basic principle that higher schools are socialist in character, or forgetting that

the scientific research and development infrastructure must serve the whole economy. I do, however, want to stress that a stabilization of attitudes is taking place in the scientific community; there is an increasing and fuller understanding of the main political principles which obtain in the entire country.

A fuller understanding of the tasks facing cultural and research centers should follow on from this. The exploitation of these resources to the full should be our common goal. All our party work with regard to scientific and artistic communities is subordinated to this goal and the goals mentioned previously.

We wish to work together with the entire scientific cadre in creating a climate of universal participation in work and initiatives serving the country, in resolving ourselves the various and also difficult problems which exist, and in overcoming that which is justly criticized.

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POLITICS

POLAND

ORZECZOWSKI, FISCHER SIGN PROTOCOL IN BERLIN

LD172245 Warsaw Domestic Service in Polish 1800 GMT 17 Jan 86

[Zbigniew Kustosik report]

[Text] Marian Orzechowski, minister of foreign affairs, has been in Berlin on a 2-day official, friendly visit. The chief of Polish diplomacy was received by Erich Honecker. During the talk, the state of relations between the PZPR and the SED and between Poland and the GDR was very highly evaluated. Issues referring to the further struggle for the consolidation of socialism and for guaranteeing peace were discussed.

Minister Orzechowski was also received by Premier Willi Stoph. Tasks connected with further development of economic, scientific and technological and cultural cooperation were discussed.

During plenary talks with Oskar Fischer, GDR minister of foreign affairs, it was stated with satisfaction that the long-term measures undertaken during the 16 December 1985 meeting of the leaders of Poland and the GDR, Wojciech Jaruzelski and Erich Honecker, concerning the development of mutual relations are being consistently implemented. The special significance of the long-term program of cooperation in the area of science, technology and production up to the year 2000 was also emphasized. Further intensification of cooperation in the area of foreign policy was agreed to by the ministers. Both sides welcomed with particular satisfaction the new comprehensive proposals of the Soviet Union concerning arms limitation and disarmament, presented recently by Mikhail Gorbachev.

The ministers of foreign affairs of both states signed a plan of cultural and scientific cooperation for 1986-90.

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POLITICS

POLAND

BRIEFS

GRZYB, MICHALEK AT PARTY MEETINGS--The PZPR Voivodship Committees were in session in Radom and Elblag. Actions of the party in order to improve the housing situation were discussed in Radom with the participation of Zofia Grzyb. Tasks of the voivodship party organization arising from the resolution of the 23 Central Committee plenum and before the 10th party congress were examined in Elblag. Zbigniew Michalek took part in the meeting. [Text] [Warsaw Television Service in Polish 1620 GMT 13 Jan 86 LD] /6662

BARCIKOWSKI AT KIELCE FETE--Kielce is celebrating the 41st anniversary of liberation today. Kazimierz Barcikowski, deputy chairman of the Council of State and member of the PZPR Central Committee Politburo, participated in today's celebrations of the 41st anniversary of the liberation of Kielce from Hitler's occupation, and in the ceremony of the decoration of the city with the Grunwald Cross, Second Class. Georgiy Rudov, consul general of the Soviet Union in Krakow, was also present. [Excerpts] [Warsaw Television Service in Polish 1830 GMT 13 Jan 86 LD] /6662

STOMIL FACTORY DIRECTOR SUSPENDED--The minister of chemical and light industry suspended from duty the director of the Stomil rubber factory in Piastow, Jozef Dworakowski. At the same time the appropriate departments of the ministry have been asked for an urgent explanation of all irregularities in the investment projects, welfare and production activity of this plant. The industrial safety and hygiene departments of the ministry are to explain, with the care due to the matter, the reasons for not offering the help needed to past employees of the plant, among them Mieczyslaw Stawicki. On 31 January there is to be a meeting of the heads of the ministry, which had been planned earlier, devoted to an assessment of the whole issue of the Piastow Stomil factory. We remind you that Wojciech Jaruzelski paid a visit to this enterprise yesterday. [Text] [Warsaw Television Service in Polish 1830 GMT 28 Jan 86 LD] /6662

SHAKEUP IN SZCZECIN--Marian Wozniak, member of the Politburo and secretary of the PZPR CC, together with Minister Adam Nowotnik, head of the Office for Maritime Economy, and Ryszard Bryk, deputy minister of metallurgy and machine industry, took part in the proceedings of the PZPR Voivodship Committee Plenum. In the organizational part of the plenum, personnel changes were made. The resignation of Adam Sobiechowski, the agricultural secretary of the voivodship committee, was accepted and Kazimierz Karapuda, hitherto secretary of the town and parish committee in Dobra Nowogardzka, was appointed

to replace him. At the same time, Jerzy Michalak, head of the voivodship committee personnel policy department, moved to the post head of the deputies' office in the voivodship office. His post was taken by Wieslaw Krysiak, hitherto deputy head of the political and organization department in the voivodship committee. [Excerpts] [Szczecin Domestic Service in Polish 1615 GMT 16 Jan 86 LD] /6662

BARCIKOWSKI ADDRESSES LABOR COUNCIL--An inaugural meeting of the labor protection council in its new form called by the State Council took place in Warsaw. The proceedings were opened by Professor Sylwester Zawadski, a member of the State Council who underlined the expanded powers resulting from amendments to the trade unions act. Kazimierz Barcikowski presented the members of the council with nomination procedures. He said among other things that the struggle for safe working conditions was paralleling the working class struggle. Today in changed social circumstances the question of protecting human labor continues to be extremely important. [Text] [Warsaw Domestic Service in Polish 1600 GMT 23 Jan 86 LD] /6662

JARUZELSKI VISITS RUBBER FACTORY--Today, Wojciech Jaruzelski acquainted himself with working conditions in the rubber industry Stomil factory in Piastow, near Warsaw. The incentive for the visit was a report shown on Saturday evening in the television magazine CZAS. Wojciech Jaruzelski also visited the hero of the report, Mieczyslaw Stawicki, who suffered badly due to hard working conditions in Stomil. While being pensioned off and struggling with illness, he unfortunately met with no help or interest from his former employer. Wojciech Jaruzelski in conversations with workers showed interest in the improvement of production processes and work safety and hygiene. He also visited a nearby complex of chemical schools. [Text] [Warsaw Domestic Service in Polish 1900 GMT 27 Jan 86 LD] /6662

ORZECZOWSKI, URBAN AT IDEOLOGICAL CONFERENCE--An ideological-theoretical conference was held yesterday at the Silesian Military District Club in Wroclaw. The leading cadre from the district's units and institutions participated in the conference as well as Marian Orzechowski, the foreign minister, Jerzy Urban, the government press spokesman, and Aleksander Kwasniewski, minister for youth affairs. Minister Orzechowski devoted much attention to the results of the Geneva summit, treating it as the first step toward a normalization of East-West relations. Minister Kwasniewski reported on the socio-political situation of the youth in the country. Minister Jerzy Urban in turn, replying to questions, discussed church-state relations, and the work of the Government Press Bureau, paying particular attention to the attitudes of journalists from the Western states and other subjects. [Text] [Wroclaw Domestic Service in Polish 0600 GMT 17 Jan 86 LD] /6662

CSO: 2600/236

SCIENCE AND TECHNOLOGY

ROMANIA

BUCHAREST SUBWAY RADIO COMMUNICATIONS SYSTEM DESCRIBED

Bucharest REVISTA TRANSPORTURILOR SI TELECOMUNICATIILOR in Romanian No 9,
1985 pp 81-84

[Article by E. Rusu and I. Lixandru, Institute of Telecommunications Research and Technological Design: "The Radio Communications System of the Bucharest Metro"]

[Text] This article discusses the specific problems of radio communications for a subway system and the way in which these problems have been solved in the case of the Bucharest Metro.

1. Specific Problems of Subway Radio Communications Systems

Radio communications systems for subways must provide for traffic control and direction as a function of the passenger flow or other specific features of a public service of this type. They are at the same time systems intended to ensure traffic safety, aid in solving problems arising in emergency situations, or transmit information relating to traffic.

The following are the principal problems of an underground radio network.

1. The propagation of electromagnetic waves in a tunnel and the type of radiating radio frequency line.
2. The frequency band utilized.
3. The radio communications system.
4. The number of channels.
5. The call system.
6. The system used for grouping audio frequency and remote control channels.
7. Recording of conversations.

1. Propagation of Electromagnetic Waves in Tunnels and the Type of Radiating Radio Frequency Line

The propagation conditions in channels are extremely unfavorable for electromagnetic waves because of the absorption loss and the multiple reflections reflections that occur.

The solution for achieving the most economical and uniform distribution of radio frequency power in a tunnel is installation of a radiating radio frequency line along the tunnel.

Two-wire cables or coaxial leakage cables may be used as radiating radio frequency lines.

Although two-wire cable is more suitable from the economic viewpoint, from the engineering viewpoint a coaxial leakage cable is to be recommended, for the following reasons:

(a) External conditions have minimum, negligible, effect in the case of a coaxial cable (which has a solid jacket). As regards two-wire cables, deposits of impurities or precipitates (condensation) can lead to increase in the attenuation of 6 times the rated value.

(b) The abnormalities that can occur in installation of a coaxial cable (e.g., distance from the tunnel wall) and fastening elements have a negligible effect on attenuation, regardless of the frequency used. In the case of a two-wire line, abnormalities in the equipment and assembly elements (including their positioning) exert a significant influence, and the additional attenuation resulting from the stray capacitance introduced by the abnormalities can reach very high values in some frequency bands.

(c) The coaxial cable has a surge impedance of 50 to 60 ohms equalling the impedance of the radio communications equipment. Consequently, no adapter units (impedance transformers) are required. In the case of two-wire cables, the line impedance differs greatly from the impedance of the equipment, so that adapter units must be used. In addition, abnormalities in the installation of two-wire lines cause variations in the line impedance, this creating especially great difficulties in the event that several frequencies are used.

2. Frequency Band Used

The frequencies allocated for mobile radio communications, especially the 150-megahertz or 450-megahertz band, are used in radiotelephone traffic.

Both engineering and economic problems must be taken into consideration in selection of the frequency band to be used.

Attenuation over the radio frequency cable increases with increase in the frequency. Thus, attenuation reaches values of 30 to 35 decibels per kilometer in the 150-megahertz band, while in the 450-megahertz band it reaches 55 decibels per kilometer. It follows that more equipment is required in the 450-megahertz band than in the 150-megahertz band to cover the same dis-

tance. At the same time, the cost of equipment in the 450-megahertz band is about 30 percent higher than in the 150-megahertz band.

Consequently, it is advisable to use the 150-megahertz band.

3. The Radio Communications System

The radio communications system must ensure communication between the central dispatcher and the train conductors or tunnel personnel equipped with portable sets.

A radiating cable is laid through the entire tunnel to supply the subway sections with radio frequency energy.

Energy supply to the cable is provided by installing stationary send-receive equipment at certain points along the tunnel.

The maximum length of the sections supplied by send-receive equipment is calculated as a function of propagation in the tunnel and cable, as well as the equipment characteristics (transmitted power, sensitivity), after which the minimum number of stationary sets required is determined on the basis of the length of the tunnel.

Hence

$$P_R = P_E - A_t \quad (1)$$

where:

P_R is the received power referred to receiver sensitivity;

P_E is the transmitted power;

A_t is the total attenuation.

$$A_t = A_c + A_{ip} + A_d + A_{LRF} \quad (2)$$

where:

A_c is the coupling loss between the mobile antenna and the radiating line (about 75 decibels for the distances ordinarily used in practice);

A_{ip} is the propagation instability due to field strength fluctuations caused by multiple reflections inside the tunnel (about 15 decibels);

A_d is the attenuation introduced by the power divider (3 decibels) through which the radio frequency cable is supplied by a stationary set in both directions (left-right);

A_{LRF} is the maximum permissible attenuation of the radio frequency line.

It follows from (1) and (2) that

$$A_{LRF} = P_E - P_R - 93 \text{ dB} \quad (3)$$

$S = P_E - P_R$ is defined as the system figure; equation 3 becomes

$$A_{LRF} = S - 93 \text{ dB} \quad (4)$$

If equipment is used which has $P_E = 6$ watts, a sensitivity of 1 microvolt, an impedance of 60 ohms, and $S = 146$ decibels, the following is obtained from equation (4):

$$A_{LRF} = 53 \text{ decibels,}$$

which, with a coaxial leakage cable attenuation of 30 decibels per kilometer, corresponds to a radio frequency line length of 1.75 kilometers left-to-right relative to the point at which the line is fed.

Similarly, in exact calculation of the radio frequency line length account is also to be taken of the attenuation introduced by the duplexer filter and the flexible connecting coaxial cable between the send-receive equipment and the radiating line.

Such lengths cannot always be used in practice, since for operational reasons the send-receive equipment must be installed in the telecommunications rooms of subway stations. Station locations are determined in accordance with traffic criteria and stations are generally not situated at distances suitable for radio communications so that the optimum length of the radio frequency line may be utilized. Consequently, the number of sets of send-receive equipment needed in practice is greater than the number determined by theory. The modes of operation that can be applied for subway communications are (a) simplex, (b) duplex, and (c) combined (duplex + semi-duplex).

(a) Operation under the simplex system is not suitable because it allows the dispatcher to operate in one direction only at any given time (transmission only or reception only).

(b) A duplex system covering all sets permits simultaneous connection in both directions similar to telephone connections. Inasmuch as the subway radio communication system is set up not with the aim of permitting radiotelephone communication between two sets with equal priorities but for the purpose of traffic supervision and control, this involving commands or short messages required for traffic safety, it is not advisable to adopt such a system.

(c) The system recommended for subway use is the combined system, which involves duplex operation between stationary and mobile (portable) sets and semi-duplex operation between mobile (portable) sets. A system such as this ensures that the dispatcher will have priority, enabling him to intervene in a conversation in progress or to free a busy channel for transmission of a message. This system favors the central dispatcher control system, inasmuch as all traffic control commands are transmitted exclusively by the dispatcher, the person who has all information available on the situation as a whole.

4. Number of Channels (Frequencies)

The combined system can use a single radio channel or frequency for sending and one for reception. All send-receive units are accordingly employed in simultaneous traffic, so that communication is established with the mobile set no matter where it may be located in the tunnel. However, operation on one common channel (omnibus) along the entire tunnel does present one disadvantage, the generation of interference at the radio sector (zone) boundaries.

The risk of interference can be eliminated or reduced to acceptable values by simultaneous use of several operating frequencies, this involving suitable decoupling (filters) between transmitters and receivers, as well as an automatic mobile equipment search system. This eliminates the danger of interference and at the same time provides the possibility of conducting several conversations simultaneously.

5. The Call System

The call system is of special importance in a radio communications network for subways, in view of the high speed of vehicle travel and consequently the heavy demands made of the operator's attention.

There are two calling solutions, (a) general calling and (b) selective calling.

(a) In the case of general calling the receivers are open at all times, a call is received by all sets, and only the set that is called responds. This system results in savings from the economic viewpoint, but the operator's attention is divided so that he will not miss a message.

(b) The selective calling solution allows the calling only of a set wanted on a specific occasion, without the need for attention on the part of others. Under this system, only the receiver of the set called is selected and opened after the call code has been transmitted. Similarly, outfitting the dispatcher control system with call recording facilities permits the storage of one or more calls made while a conversation is in progress.

The system should permit transmission of a general call whenever needed.

6. Grouping of Audio Frequency, Command, and Control Channels

Three pairs are required in a telephone cable for control of stationary send-receive equipment and transmission of conversations. Two of these pairs are used for low-frequency transmission (one pair send, one pair receive) from and to dispatcher control, and one pair for remote control and remote signaling.

A subway tunnel is covered from the radio viewpoint by several sets of send-receive equipment, the number being determined by the tunnel length.

Equipment remote control and conversation (send-receive) can be accomplished by two methods:

(a) simultaneously for all sets of send-receive equipment (superimposition); this ensures continuity of connection with a vehicle when it leaves a particular radio zone;

(b) successively (by addition); this might lead to interruption of conversations during transition from one radio zone to another.

In the case of simultaneous connection, only one telephone pair each must be provided for remote control, transmission, and reception for all sets of radio communication equipment, while a pair is required for each set of equipment in the event of successive connection.

Consequently, the method of connection by superimposition is to be recommended.

7. Recording of Conversations

To clarify the causes of incidents, the central dispatcher control equipment must permit connection of a device for magnetic recording of conversations, together with date and hour printing. This allows subsequent verification of different orders or messages sent and received.

8. The Radio Communications System of the Bucharest Subway

This system provides for two-way radiotelephone connections between the central dispatcher and train operators or workers equipped with portable sets and among train operators.

Connections are ensured along the entire length of the tunnel. Continuity is ensured by automatic transfer of a vehicle from one stationary send-receive set to another. The tunnel is treated as a "large" radio zone made up of a number of "small" zones determined by the range of coverage of the stationary radio sets.

The radiating radio frequency line is of the coaxial leakage cable type with an attenuation of 33 decibels per kilometer. The cable is installed along the tunnel wall and under station platforms. The line is connected to send-receive equipment installed in the telecommunications rooms of the subway stations, by means of power distributors and a flexible coaxial cable with an attenuation of 3 decibels per 100 meters.

The stationary radio sets are connected to dispatcher control by (low-frequency) telephone lines for transmission, reception, remote control, and remote signalling. The low-frequency channels are grouped by superimposition, this requiring only three telephone pairs. Trouble in a set of send-receive equipment can be detected from the dispatcher control console.

The stationary and mobile radio transmitters have a power of 10 to 40 watts (adjustable). This permits achievement of a signal/noise ratio of 20 to 25 decibels, even under high noise level conditions (35 decibels). The portable sets have a transmission power of 2 watts.

A system parameter of a value of 147 decibels has been obtained on the basis of the equipment characteristics (portable set transmission power, receiver sensitivity of 0.5 microvolt).

The total attenuation ranges from 96 to 101 decibels, in view of the coupling loss between the vehicle antenna and radiating cable (around 75 decibels), the electromagnetic field instability fluctuation due to multiple reflections inside the tunnel (around 15 decibels), the attenuation introduced by the duplexer filter (2 decibels) and by each power divider (3 decibels), and the attenuation introduced by the flexible coaxial cable connecting the send-receive equipment and the radiating cable (1 to 3 decibels, depending on its length).

The number of power dividers which must be taken into account in calculation depends on the number of tunnels supplied by one set of send-receive equipment.

The difference up to the system parameter value has been utilized to provide for radiotelephone connections, by determining the maximum length of the coaxial leakage cable sections. This length ranges from 1394 to 1545 meters. For the reasons discussed in Section 1.3, lengths ranging from 540 meters to 1512 meters have been applied in practice.

The combined mode is applied for communications, duplex operation being used for connection between a stationary set and a vehicle and semiduplex operation for communication between mobile and portable sets.

The radio communications system of the Bucharest subway operations in the 146 to 174 megahertz band, on three frequencies allocated as follows:

f_1 , f_2 are the reception frequencies of the mobile equipment and respectively the transmission frequencies of the stationary sets. The mobile sets are outfitted with a an automatic two-channel monitoring system.

f_3 is the transmission frequency of the mobile equipment and the reception frequency of the stationary sets.

Alternating use of frequencies from one radio sector to the next has led to elimination of the interference that might occur in the area of overlapping of two sectors.

The call system adopted is selective calling in both directions (from stationary to mobile set and from mobile to stationary). This allows calling exclusively of the set needed (activation exclusively of the receiver of the set called).

The system permits transmission of a general call, if needed, and of an emergency call. Call confirmation in both directions (dispatcher to vehicle and vehicle to dispatcher) is also achieved, by means of optical signalling.

All commands and calls are transmitted through the dispatcher control center.

This center is outfitted with a control console equipped with a microphone and loudspeaker for conducting conversations and 100 keys permitting transmission and reception of calls to and from a maximum of 100 sets.

The system is designed to permit display of a calling number and holding of such calls until the dispatcher responds.

There is a repeater system for control of operation of the stationary send-receive equipment. This provides the possibility of communication between mobile and portable sets without intervention by the dispatcher.

The console has provision for connection of a magnetic recording device for verification of different commands or information sent or received.

The first section of Main Line I of the Bucharest subway, lying between the Semanatoarea and Timpuri Noi stations, was opened for service in November 1979. This was followed by opening of the Timpuri Noi--Republica--Politehnica--Industriilor and Dristor--Piata Unirii sections. Connections between Main Line I and Gara de North (North Railroad Station) are now being built. Construction of Main Line II, extending from the Bucharest Heavy Machinery Enterprise (IMBG) and Pipera, has now begun.

The radio communications system has been designed for the final capacity of the subway. The central dispatcher control system will permit future extension simply by adding to the console wiring. It ensures high-quality connections and is highly dependable, being one of the most modern subway radio communications systems in the world.

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END